MARLAN B. WILBANKS (SBN 758223 - Admitted Pro Hac Vice)
mbw@wilbanksgouinlock.com
SUSAN S. GOUINLOCK (SBN 303217 - Admitted Pro Hac Vice)
ssg@wilbanksgouinlock.com
WILBANKS & GOUINLOCK, LLP
3490 Piedmont Road, NE, Suite 1010
Atlanta, Georgia 30305
Telephone: (404) 842-1075

ALICE CHANG (SBN 239761)
alicechangjdmba@gmail.com
1301 Kenwood Road, Unit 159B
Seal Beach, CA 90740
Telephone: (714) 507-6161

ELIOT J. RUSHOVICH (SBN 252343)
eliot@riselawfirm.com
LISA M. WATANABE-PEAGLER (SBN 258182)
lisa@riselawfirm.com
ELISSA A. WAIZMAN (SBN 329959)
elissa@riselawfirm.com
RISE LAW FIRM, PC
8383 Wilshire Boulevard, Suite 315
Beverly Hills, CA 90211
Telephone: (310) 728-6588

Attorneys for Relators and Plaintiff-Relator

IN THE UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

[UNDER SEAL], Plaintiffs, v. **[UNDER SEAL],** Defendants.	**CASE NO. CV 18-08311-ODW(AS)** **PART 3 OF 13** **(EXHIBITS 29 – 37)** **FOURTH AMENDED COMPLAINT**

[FILED IN CAMERA AND UNDER SEAL PURSUANT TO 31 U.S.C. § 3730(b)(2)]

MARLAN B. WILBANKS (SBN 758223 – Admitted Pro Hac Vice)
mbw@wilbanksgouinlock.com
SUSAN S. GOUINLOCK (SBN 303217 -Admitted Pro Hac Vice)
ssg@wilbanksgouinlock.com
WILBANKS & GOUINLOCK, LLP
3490 Piedmont Road, NE, Suite 1010
Atlanta, Georgia 30305
Telephone: (404) 842-1075

ALICE CHANG (SBN 239761)
alicechangjdmba@gmail.com
1301 Kenwood Road, Unit 159B
Seal Beach, CA 90740
Telephone: (714) 507-6161

ELIOT J. RUSHOVICH (SBN 252343)
eliot@riselawfirm.com
LISA M. WATANABE-PEAGLER (SBN 258182)
lisa@riselawfirm.com
ELISSA A. WAIZMAN(SBN 329959)
elissa@riselawfirm.com
RISE LAW FIRM, PC
8383 Wilshire Boulevard, Suite 315
Beverly Hills, CA 90211
Telephone: (310) 728-6588

Attorneys for Relators and Plaintiff-Relator

IN THE UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA *ex rel.* **IONM LLC**, a Delaware corporation and *ex rel.* **JUSTIN CHEONGSIATMOY, M.D.**; **STATE OF CALIFORNIA** *ex rel.* **IONM LLC**, a Delaware corporation and *ex rel.* **JUSTIN CHEONGSIATMOY,**	**CASE NO. CV 18-08311-ODW(AS)** **PART 3 OF 13 (EXHIBITS 29 – 37)** **FOURTH AMENDED COMPLAINT**

M.D; and **LOS ANGELES COUNTY** *ex rel.* **IONM LLC**, a Delaware corporation; and *ex rel.* **JUSTIN CHEONGSIATMOY, M.D.**, and **JUSTIN CHEONGSIATMOY, M.D.**, in his individual capacity

Plaintiffs,

v.

UNIVERSITY OF SOUTHERN CALIFORNIA, a California corporation; and

USC CARE MEDICAL GROUP, INC., a California corporation,

Defendants.

[FILED IN CAMERA AND UNDER SEAL PURSUANT TO 31 U.S.C. § 3730(b)(2)]

Exhibit 29

Medicare

USC Care Medical Grou

1510 San Pablo Street 5th floor, Los Angeles, CA 90033

SURGICAL NEUROPHYSIOLOGY

[redacted]
DOB: [redacted]
DOS: 12/01/2017 06:01
ATT: GIANNOTTA, STEVEN
REF:
MRN: [redacted]
FIN: 6
KH-USC

PC#	BLK
DATE OF PROCEDURE	
12/1/17	
START TIME	END TIME
10-	14-

4h

LOCATION

IP-UH	IP-Norris	OP-HCC
OP-UH	OP-Norris	Other

PROVIDER

Gonzalez, Andres	Shillon, Parastou	Cheongsiatmoy, Justin
Jayanandanjan, Dhiraj		Tran, Anh Thu

REFERRING PHYSICIAN

X Giannotta, Steven	Wang, Jeffrey	Hadsell, Rick
Chen, Thomas	Hah, Raymond	Nacht, Dennis
Holoh, Patrick	Spoonamore, Mark	Saha, Uttam
Liu, John	Mouradian, William	Pepper J P
Zada, Gabriel		Markson, Alex
Acosta, Frank	Mack, William	Kalal, Niels
Liu, Charles	Amar, Arun	Kot, Elias
Russin, Jon	Tonser, Matt	Kparko, John
Liker, Mark		

INTRAOPERATIVE TESTING: BAE1008

x 30 min	Stand by before IONM	99360 26
x 15 min	Continuous IONM (personal)	95940
x 1 hr	Continuous IONM (remote/nearby)	95941

MEDICARE CODES

x 30 min	Standby before IONM	99360 26
X x 15 min	Continuous IONM (personal)	95940
x 15 min	Continuous IONM (remote/nearby)	G0453 (1:1)

BRAIN MAPPING

First hour, Intraoperative cortical mapping (for DBS)	95961 26
Subsequent hrs, Intraop mapping (for DBS)	95962 26

DBS PROGRAMMING

First hour, Complex DBS programming	95978 26
subsequent hours, Complex DBS programming	95979 26

EEG INTRAOPERATIVE

EEG, coma-or sleep	95822 26

ELECTROCORTICOGRAPHY

ECog	95829 26

EVOKED POTENTIALS

SSEP, upper and lower limbs *NEW #	95936 26
TcMEP upper and lower limbs *NEW #	95939 26
SSEP, upper limbs #	95925 26
SSEP, lower limbs #	95926 26
TcMEP upper limbs	95928 26
TcMEP lower limbs	95929 26
X Auditory evoked potential	92585 26
Visual Evoked potential	95930 26

ELECTROMYOGRAPHY ++ additional CPT code needed

Neuromuscular Junction Testing ++	95937 26
2 extremities ++	95861 26
4 extremities ++	95864 26
Peripheral nerve stimulation - each nerve sensory * NEW	95904 26
Peripheral nerve stimulation - each nerve motor * NEW	95980 26
TcMEP or EMG for external urethral or anal sphincter *NEW ++	95870 26
Cranial Unilateral ++	95867 26
Cranial Bilateral ++	95868 26

DX CODE DIAGNOSIS CPT

BRAIN (++ good for EMG)	
SPINAL STENOSIS	
**Cervical ++ #	M48.02
**Thoracic ++ #	M48.04
**Lumbar ++ #	M48.06
**Lumbosacral ++ #	M48.07
SPONDYLOSIS, other	
**Cervical ++ #	M47.892
**Thoracic ++ #	M47.894
**Lumbar ++ #	M47.896
**Lumbosacral ++ #	M47.897
DEGENERATIVE DISC, other	
**Cervical - high ++ #	M50.31
**Cervical - mid ++ #	M50.32
**Thoracic ++ #	M51.34
**Lumbar ++ #	M51.36
**Lumbosacral ++ #	M51.37
ROOT DISORDERS, other	
**Cervical Root ++ #	G54.2
**Thoracic Root ++ #	G54.3
**Lumbosacral Root ++ #	G54.4
Cauda Equina Syndrome ++	G83.4
Sciatic Nerve Lesion, RLE ++	G57.01
Sciatic Nerve Lesion, LLE ++	G57.02
Nerve root and plexus, other ++ #	G54.8
Cord Compression, other ++	G95.29
Spinal Cord, other specified ++	M25.78

BRAIN # good for SEP, MEPs)	
Motor disorders nervous syst ++ #	G98.5
Cranial Nerve disorders, other dz ++ #	G52
Cerebral aneurysm, nonruptured #	I67.1
Moya-Moya disease #	I67.5
IntraCranial abscess and granuloma #	G06.0
IntraSpinal abscess and granuloma #	G06.1
Facial Palo, Atyp ++ #	G50.1
Trigeminal neuralgia ++ #	G50.0
Hemifacial spasm ++ #	G51.3
Hemangioma, intracranial #	D18.02
Extrapyramidal and movement disorder ++	G25.89
Corticobasal degeneration ++	G31.85
Spasmodic Torticollis ++	G24.3
ENT	
Facial Nerve disorders, other ++ #	G51.8
Facial Weakness ++	R29.810
Disorders of Vagus Nerve ++ #	G52.2
Thyroid Neoplasm, uncertain behav #	D44.0
Parathyroid neoplasm, uncertain behav #	D44.2
Other specified cranial nerves ++ #	G52.8
Neurofibromatosis, NF1 ++ #	Q85.01
Neurofibromatosis, NF1 ++ #	Q85.02
Schwannomatosis ++ #	Q85.03
Neurofibromatosis, other ++ #	Q85.09

NEOPLASM	
MALIGNANT	
**Spinal Meninges ++ #	C70.1
**Spinal Cord ++ #	C72.0
**Cauda Equina ++ #	C72.1
**Mets to Brain ++ #	C79.31
**Mets cerebral meninges ++ #	C79.32
**Mets, other nerv sys ++ #	C79.49
**Vertebral Column #	C41.2
**Brainstem #	C71.7
BENIGN	
**Spinal Meninges ++ #	D32.1
**Cr#s (acoustic neuroma)++ #	D33.3
**Spinal Cord ++ #	D33.7
**Vertebral Column #	
**Brain, supratentorial #	D33.0
**Brain, infratentorial #	D33.1
**Other CNS #	D33.7
NEO OF UNCERTAIN BEHAV	
**Brain, supratentorial #	D43.0
**Brain, infratentorial #	D43.1
**Cranial Nerves #	D43.3
**Spinal Cord #	D43.4
**Other CNS #	D43.8

PROVIDER SIGNATURE	
	Signature

Exhibit 30

INTRAOPERATIVE PATIENT INJURY

[redacted]

USC Keck MRN # [redacted]

Surgery Date: Monday, October 16, 2017

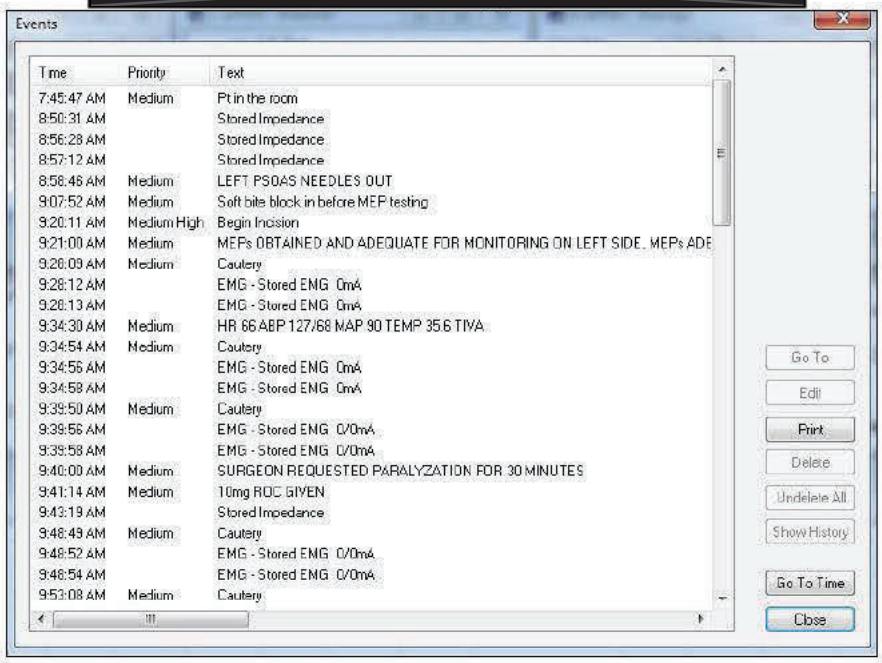
Monitoring Time: 9:20AM – 2:35PM (5 hours and 15 minutes)

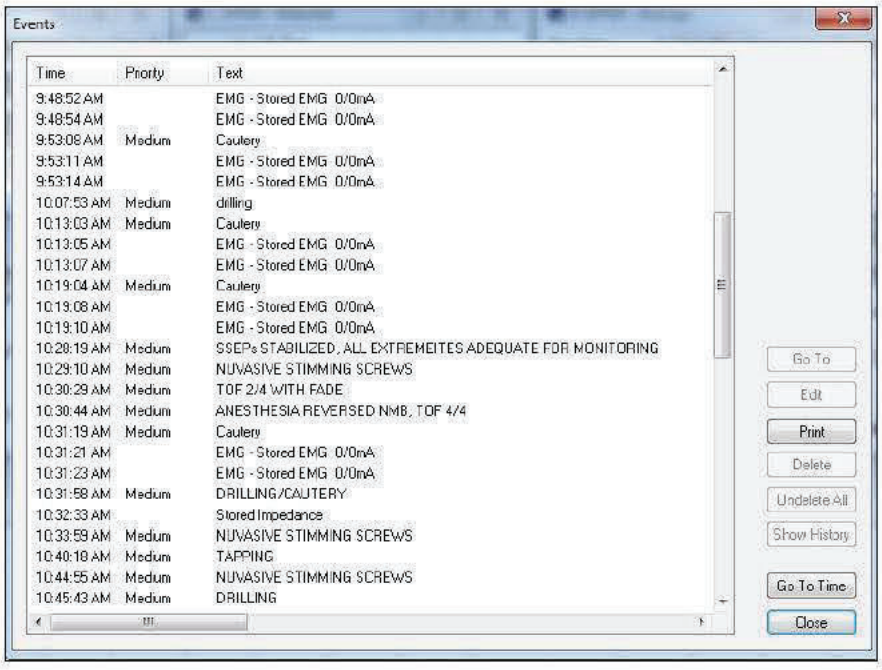
[redacted]

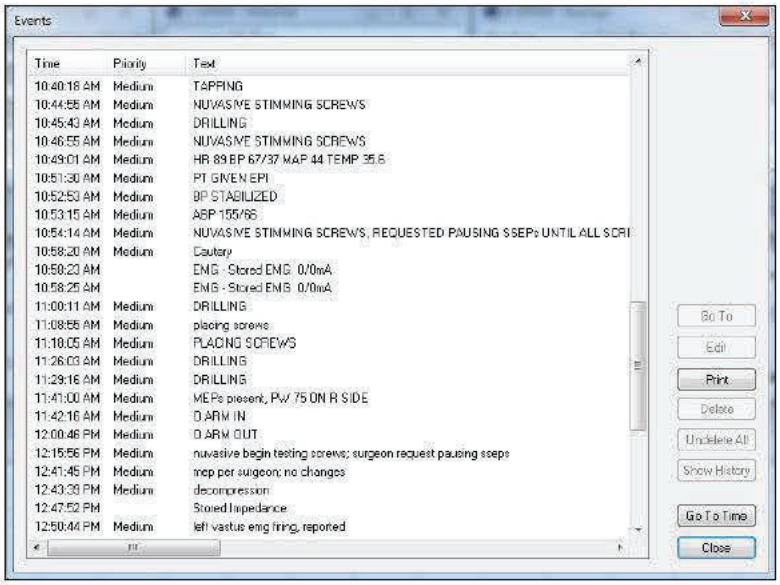
IONM FELLOW: Jonathan Chen

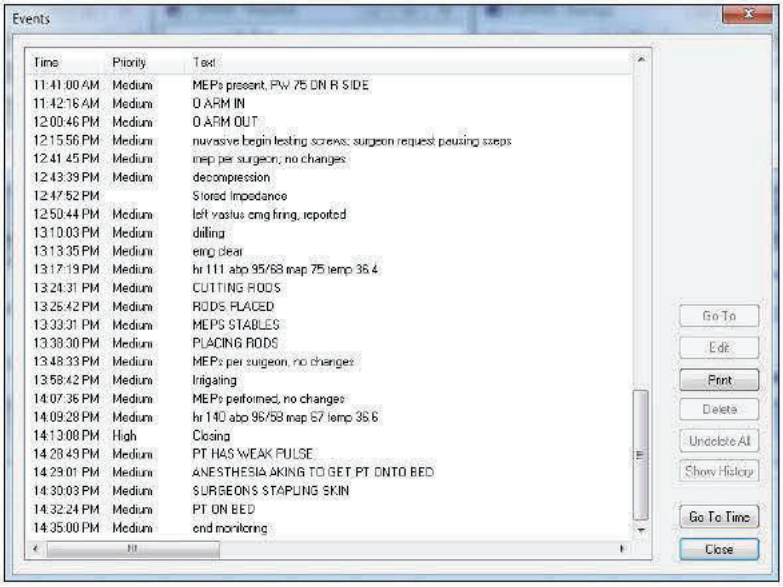
[redacted]

[redacted]

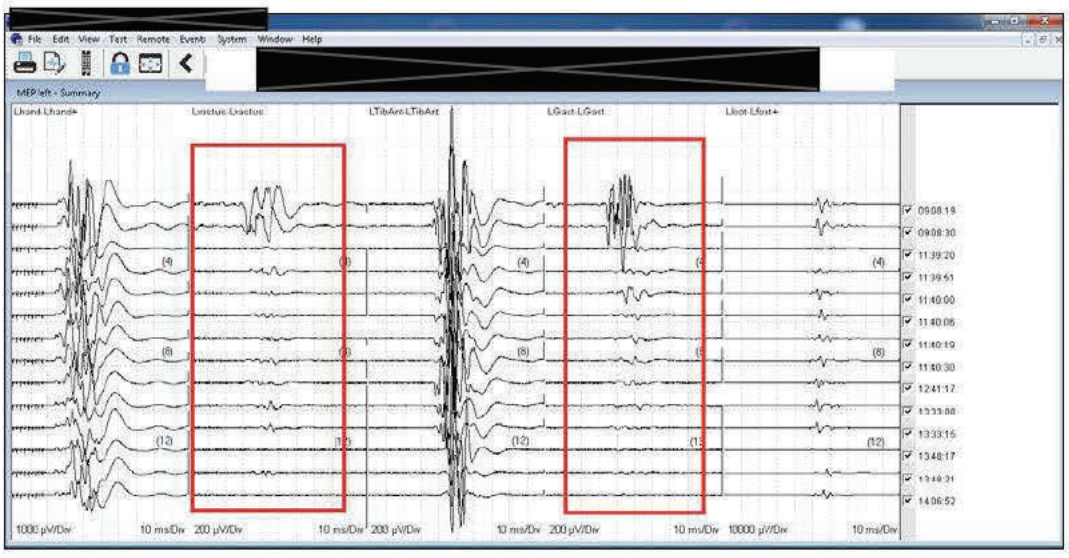





Events
Time Priority Text
10:40:18 AM Medium TAPPING
10:44:56 AM Medium NUVASIVE STIMMING SCREWS
10:45:43 AM Medium DRILLING
10:46:55 AM Medium NUVASIVE STIMMING SCREWS
10:49:01 AM Medium HR 89 BP 67/37 MAP 44 TEMP 35.6
10:51:30 AM Medium PT GIVEN EPI
10:52:53 AM Medium BP STABILIZED
10:53:15 AM Medium ABP 155/66
10:54:14 AM Medium NUVASIVE STIMMING SCREWS, REQUESTED PAUSING SSEPs UNTIL ALL SCRI
10:58:20 AM Medium Cautery
10:59:23 AM EMG - Stored EMG 0/0mA
10:58:25 AM EMG - Stored EMG 0/0mA
11:00:11 AM Medium DRILLING
11:08:56 AM Medium placing screws
11:18:05 AM Medium PLACING SCREWS
11:26:03 AM Medium DRILLING
11:29:16 AM Medium DRILLING
11:41:00 AM Medium MEPs present, PW 75 ON R SIDE
11:42:16 AM Medium O ARM IN
12:00:46 PM Medium O ARM OUT
12:15:56 PM Medium nuvasive begin testing screws; surgeon request pausing sseps
12:41:45 PM Medium mep per surgeon; no changes
12:43:39 PM Medium decompression
12:47:52 PM Stored Impedance
12:50:44 PM Medium left vastus emg firing, reported
Go To
Edit
Print
Delete
Undelete All
Show History
Go To Time
Close


Events
Time Priority Text
11:41:00 AM Medium MEPs present, PW 75 ON R SIDE
11:42:16 AM Medium O ARM IN
12:00:46 PM Medium O ARM OUT
12:15:56 PM Medium nuvasive begin testing screws; surgeon request pausing sseps
12:41:45 PM Medium mep per surgeon; no changes
12:43:39 PM Medium decompression
12:47:52 PM Stored Impedance
12:50:44 PM Medium left vastus emg firing, reported
13:10:03 PM Medium drilling
13:13:35 PM Medium emg clear
13:17:19 PM Medium hr 111 abp 95/68 map 75 temp 36.4
13:24:31 PM Medium CUTTING RODS
13:26:42 PM Medium RODS PLACED
13:33:31 PM Medium MEPS STABLES
13:38:30 PM Medium PLACING RODS
13:48:33 PM Medium MEPs per surgeon, no changes
13:58:42 PM Medium Irrigating
14:07:36 PM Medium MEPs performed, no changes
14:09:28 PM Medium hr 140 abp 96/58 map 67 temp 36.6
14:13:08 PM High Closing
14:28:49 PM Medium PT HAS WEAK PULSE
14:29:01 PM Medium ANESTHESIA AKING TO GET PT ONTO BED
14:30:03 PM Medium SURGEONS STAPLING SKIN
14:32:24 PM Medium PT ON BED
14:35:00 PM Medium end monitoring
Go To
Edit
Print
Delete
Undelete All
Show History
Go To Time
Close

[redacted]


File Edit View Test Remote Events System Window Help
MEP left - Summary
1000 µV/Div 10 ms/Div 200 µV/Div
10 ms/Div 200 µV/Div
10 ms/Div 200 µV/Div
10 ms/Div 10000 µV/Div
10 ms/Div

3

Neurology IP Progress Note
* Final Report *

[redacted]

Document Type:	Neurology IP Progress Note
*Date - Date of Service:	October 16, 2017 14:49 PDT
Document Status:	Auth (Verified)
Document Title:	NEURO Surgical Neurophysiology USC
Author:	Goedemans, Audra on October 16, 2017 14:54 PDT
Authenticated By:	GONZALEZ MD, ANDRES on November 21, 2017 15:29 PST
Encounter info:	[redacted]KH-USC, Inpatient, 10/16/2017 - 10/26/2017

* Final Report *

NEURO Surgical Neurophysiology USC

Patient: [redacted] **MRN:** [redacted] **FIN:** [redacted]
Age: **61 years** Sex: [redacted] DOB: [redacted]
Associated Diagnoses: **None**
Author: **Goedemans, Audra**

General Information
Date of study: 10/16/2017.
Referring Physician: ACOSTA MD, FRANK.

History of Present Illness
The patient presents with thoracolumbar kyphosis (revised by:CHEN FEL, JONATHAN H: 11/14/2017 9:50 PST) ~~kyphosis~~ (previously documented by:Goedemans, Audra: 10/16/2017 14:54 PDT) .

Procedure
Monitoring Modalities
Evoked Potentials: somatosensory evoked potentials, upper and lower limbs (95938), transcranial motor evoked potential, upper and lower limbs (95939).
Electromyography: train of four (95937), free run EMG (95861).

Results Review
During the T4-pelvis posterior spinal fusion with instumentation , the aforementioned modalities were continuously monitored and the surgeon was informed of the baseline(s) listed below.
Somatosensory evoked potentials: bilateral upper extremities adequate, bilateral lower extremities adequate.
Motor evoked potentials: bilateral upper extremities adequate, bilateral lower extremities adequate.

During the procedure, potentials remained stable and no adverse electrodiagnostic events were encountered during.

Free running EMG recording was provided. The OR physicians were promptly made aware of any spontaneous discharges suggesting irritation of any of the relevant nerves.

5.75 hours were spent monitoring.
The surgeons were kept informed of the monitoring status and any significant changes.

Impression and Plan
No evidence of intraoperative spinal cord impairment was seen.
(revised by:CHEN FEL, JONATHAN H: 11/14/2017 9:50 PST)

Signature Line
Electronically Signed On 10/16/17 02:54 PM PDT

Audra Goedemans

[redacted]

4

Neurology IP Progress Note
* Final Report *

[redacted]

Electronically Signed On 11/21/17 03:29 PM PST

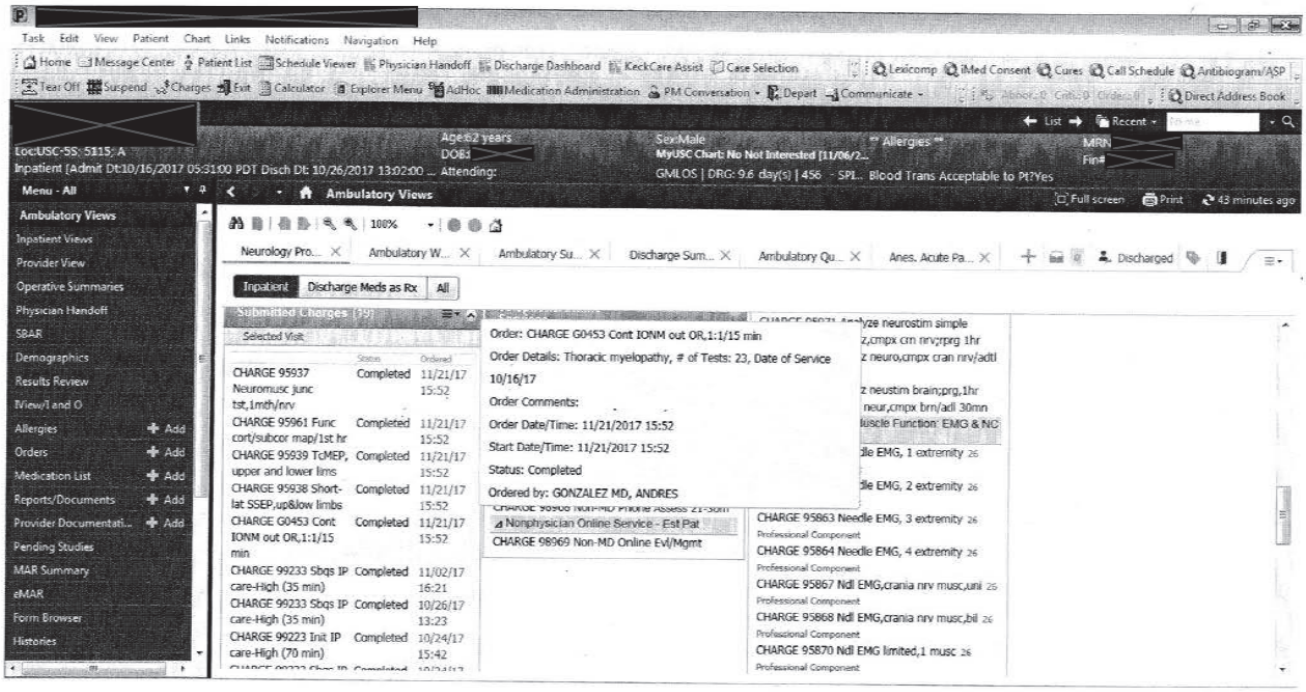
ANDRES GONZALEZ, MD

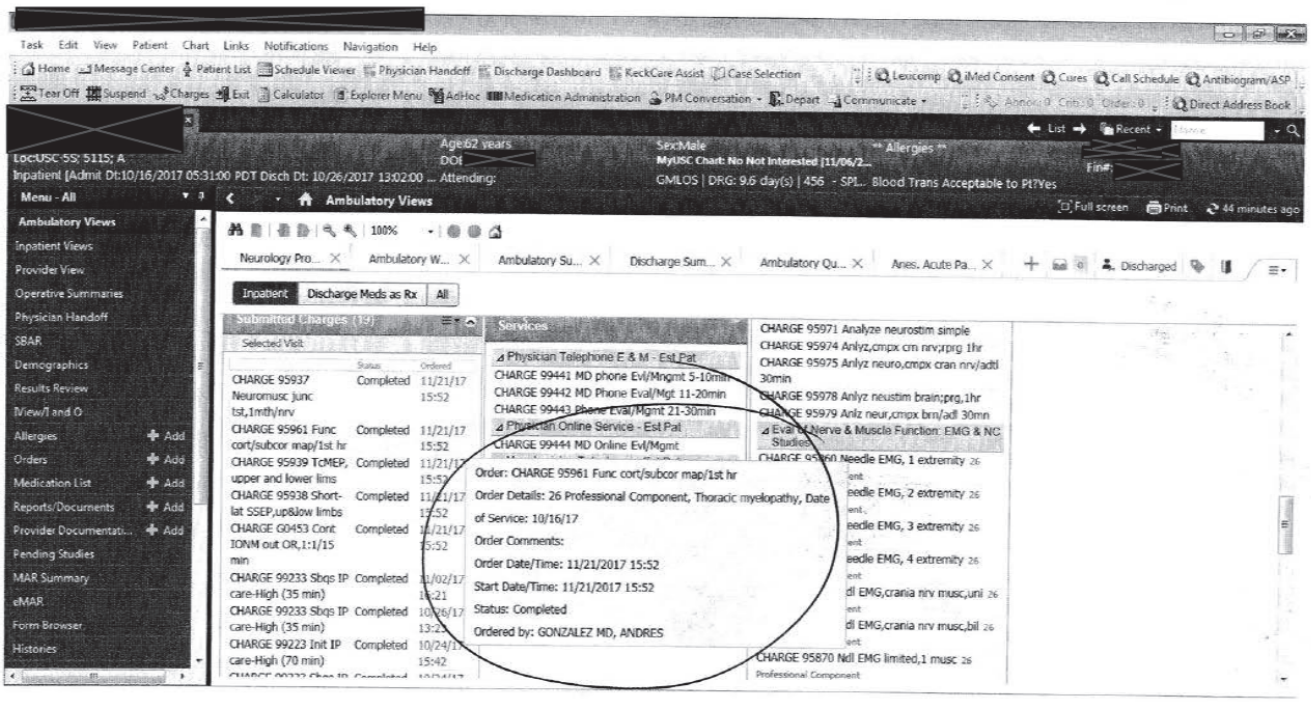
PARASTOU SHILIAN, DO

JONATHAN CHEN, Fellow

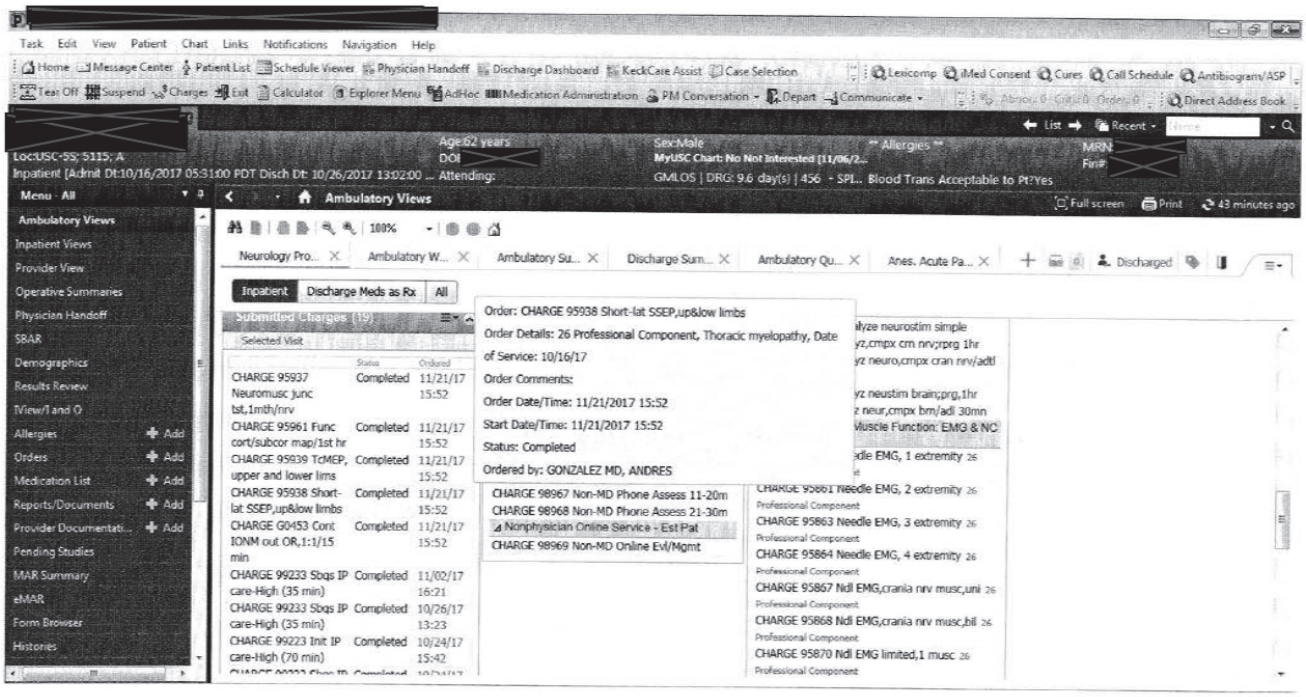
Modified by JONATHAN CHEN, FellowOn 11/14/17 09:50 AM PST

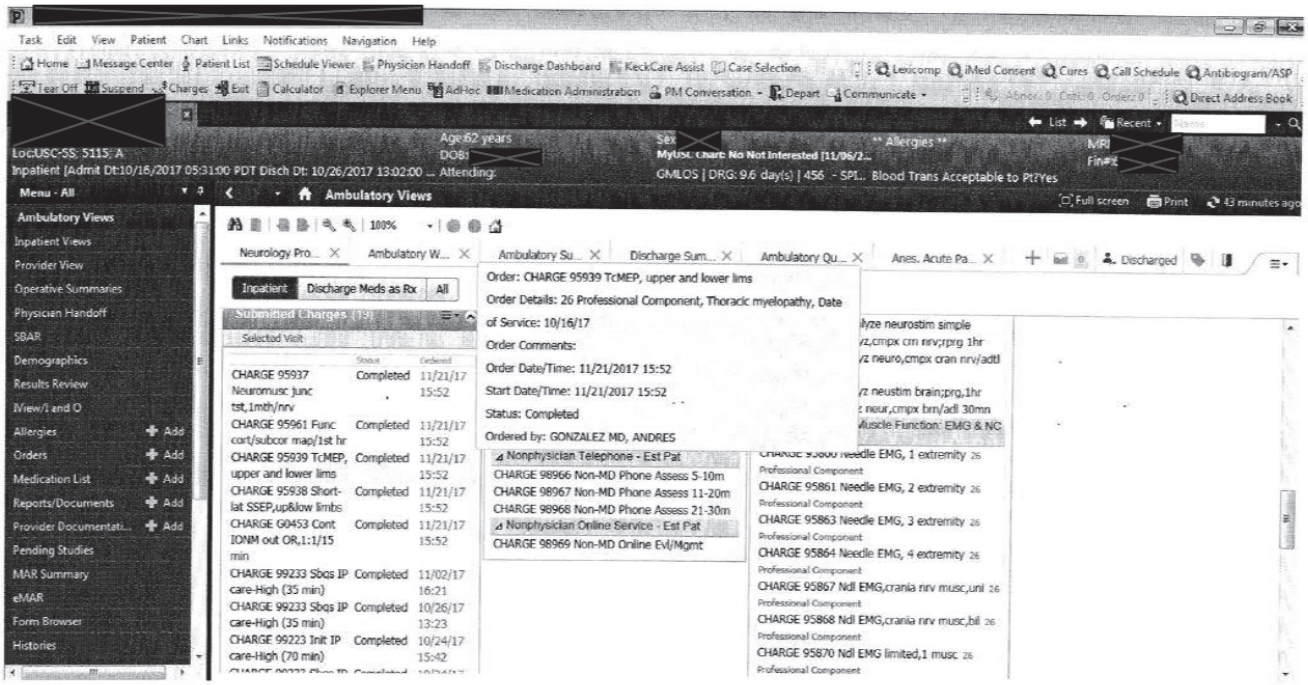
[redacted]

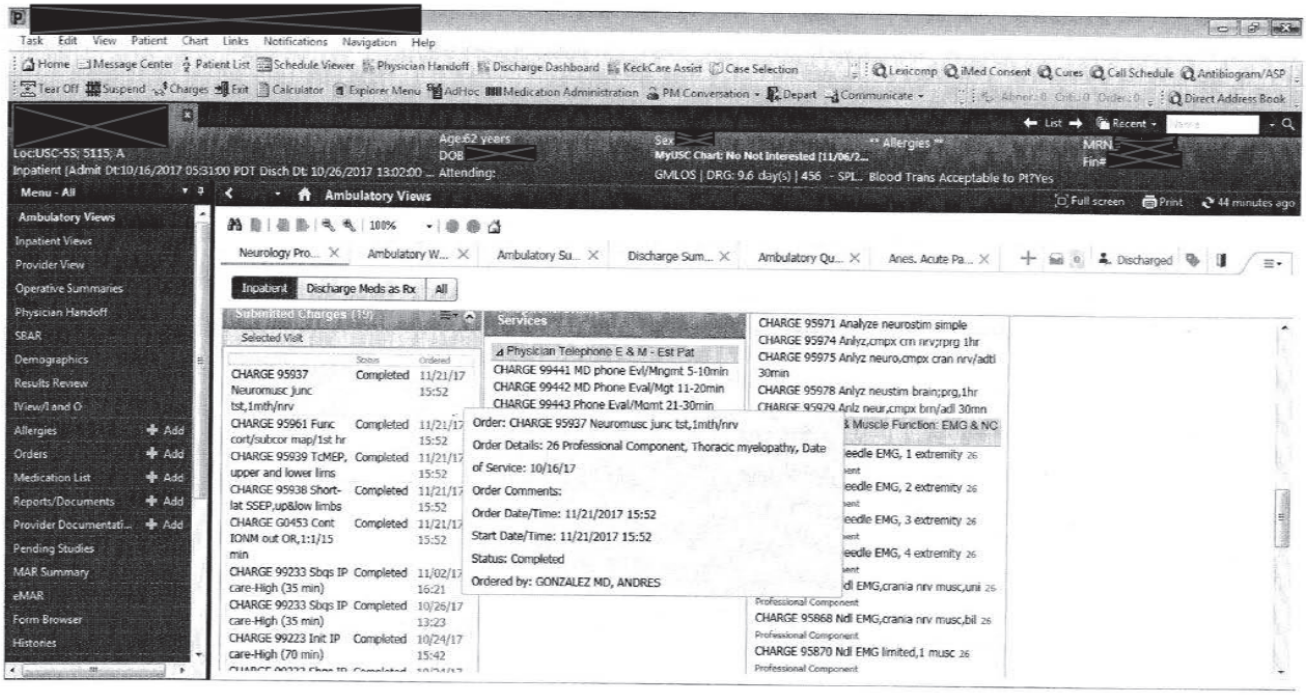

Task Edit View Patient Chart Links Notifications Navigation Help
Home Message Center Patient List Schedule Viewer Physician Handoff Discharge Dashboard KeckCare Assist Case Selection
Lexicomp iMed Consent Cures Call Schedule Antibiogram/ASP
Tear Off Suspend Charges Exit Calculator Explorer Menu AdHoc Medication Administration PM Conversation Depart Communicate
Direct Address Book
Loc:USC-5S: 5115; A
Inpatient [Admit Dt:10/16/2017 05:31:00 PDT Disch Dt: 10/26/2017 13:02:00 ... Attending:
Age:62 years
DOB:
Sex:Male
MyUSC Chart: No Not Interested [11/06/2...
Allergies
MRN
Fin#
GMLOS | DRG: 9.6 day(s) | 456 - SPL.. Blood Trans Acceptable to Pt?Yes
List Recent
Menu - All
Ambulatory Views
Full screen Print 43 minutes ago
Ambulatory Views
Inpatient Views
Provider View
Operative Summaries
Physician Handoff
SBAR
Demographics
Results Review
IView/I and O
Allergies Add
Orders Add
Medication List Add
Reports/Documents Add
Provider Documentati... Add
Pending Studies
MAR Summary
eMAR
Form Browser
Histories
100%
Neurology Pro...
Ambulatory W...
Ambulatory Su...
Discharge Sum...
Ambulatory Qu...
Anes. Acute Pa...
Discharged
Inpatient
Discharge Meds as Rx
All
Submitted Charges (19)
Selected Visit
Status
Ordered
CHARGE 95937 Neuromusc junc tst,1mth/nrv Completed 11/21/17 15:52
CHARGE 95961 Func cort/subcor map/1st hr Completed 11/21/17 15:52
CHARGE 95939 TcMEP, upper and lower lims Completed 11/21/17 15:52
CHARGE 95938 Short-lat SSEP,up&low limbs Completed 11/21/17 15:52
CHARGE G0453 Cont IONM out OR,1:1/15 min Completed 11/21/17 15:52
CHARGE 99233 Sbqs IP care-High (35 min) Completed 11/02/17 16:21
CHARGE 99233 Sbqs IP care-High (35 min) Completed 10/26/17 13:23
CHARGE 99223 Init IP care-High (70 min) Completed 10/24/17 15:42
Order: CHARGE G0453 Cont IONM out OR,1:1/15 min
Order Details: Thoracic myelopathy, # of Tests: 23, Date of Service 10/16/17
Order Comments:
Order Date/Time: 11/21/2017 15:52
Start Date/Time: 11/21/2017 15:52
Status: Completed
Ordered by: GONZALEZ MD, ANDRES
Nonphysician Online Service - Est Pat
CHARGE 98969 Non-MD Online Evl/Mgmt
CHARGE 95863 Needle EMG, 3 extremity 26
Professional Component
CHARGE 95864 Needle EMG, 4 extremity 26
Professional Component
CHARGE 95867 Ndl EMG,crania nrv musc,uni 25
Professional Component
CHARGE 95868 Ndl EMG,crania nrv musc,bil 26
Professional Component
CHARGE 95870 Ndl EMG limited,1 musc 26
Professional Component



No brain mapping in this Spine surgery.


Task Edit View Patient Chart Links Notifications Navigation Help
Home Message Center Patient List Schedule Viewer Physician Handoff Discharge Dashboard KeckCare Assist Case Selection
Lexicomp iMed Consent Cures Call Schedule Antibiogram/ASP
Tear Off Suspend Charges Exit Calculator Explorer Menu AdHoc Medication Administration PM Conversation Depart Communicate
Direct Address Book
Loc:USC-SS; 5115; A
Inpatient [Admit Dt:10/16/2017 05:3100 PDT Disch Dt: 10/26/2017 1302:00 ... Attending:
Age:62 years
DOI
Sex:Male
** Allergies **
MyUSC Chart: No Not Interested [11/06/2...
GMLOS | DRG: 9.6 day(s) | 456 - SPI... Blood Trans Acceptable to Pt?Yes
MRN
Fin#
Menu - All
Ambulatory Views
Full screen
Print
43 minutes ago
Ambulatory Views
Inpatient Views
Provider View
Operative Summaries
Physician Handoff
SBAR
Demographics
Results Review
IView/I and O
Allergies
Orders
Medication List
Reports/Documents
Provider Documentati...
Pending Studies
MAR Summary
eMAR
Form Browser
Histories
Neurology Pro...
Ambulatory W...
Ambulatory Su...
Discharge Sum...
Ambulatory Qu...
Anes. Acute Pa...
Discharged
Inpatient
Discharge Meds as Rx
All
Submitted Charges (19)
Selected Visit
CHARGE 95937 Neuromusc junc tst,1mth/nrv Completed 11/21/17 15:52
CHARGE 95961 Func cort/subcor map/1st hr Completed 11/21/17 15:52
CHARGE 95939 TcMEP, upper and lower lims Completed 11/21/17 15:52
CHARGE 95938 Short-lat SSEP,up&low limbs Completed 11/21/17 15:52
CHARGE G0453 Cont IONM out OR,1:1/15 min Completed 11/21/17 15:52
CHARGE 99223 Sbqs IP care-High (35 min) Completed 11/02/17 16:21
CHARGE 99233 Sbqs IP care-High (35 min) Completed 10/26/17 13:23
CHARGE 99223 Init IP care-High (70 min) Completed 10/24/17 15:42
Order: CHARGE 95938 Short-lat SSEP,up&low limbs
Order Details: 26 Professional Component, Thoracic myelopathy, Date of Service: 10/16/17
Order Comments:
Order Date/Time: 11/21/2017 15:52
Start Date/Time: 11/21/2017 15:52
Status: Completed
Ordered by: GONZALEZ MD, ANDRES
CHARGE 98967 Non-MD Phone Assess 11-20m
CHARGE 98968 Non-MD Phone Assess 21-30m
Nonphysician Online Service - Est Pat
CHARGE 98969 Non-MD Online Evl/Mgmt
CHARGE 95863 Needle EMG, 3 extremity 26
Professional Component
CHARGE 95864 Needle EMG, 4 extremity 26
CHARGE 95867 Ndl EMG,cranial nrv musc,uni 26
CHARGE 95868 Ndl EMG,cranial nrv musc,bil 26
CHARGE 95870 Ndl EMG limited,1 musc 26


Task Edit View Patient Chart Links Notifications Navigation Help
Home Message Center Patient List Schedule Viewer Physician Handoff Discharge Dashboard KeckCare Assist Case Selection
Lexicomp iMed Consent Cures Call Schedule Antibiogram/ASP
Tear Off Suspend Charges Exit Calculator Explorer Menu AdHoc Medication Administration PM Conversation Depart Communicate
Direct Address Book
Age:62 years
DOB:
Sex
** Allergies **
MRI
Fin#:
Loc:USC-SS: 5115: A
Inpatient [Admit Dt:10/16/2017 05:31:00 PDT Disch Dt: 10/26/2017 13:02:00 ... Attending:
GMLOS | DRG: 9.6 day(s) | 456 - SPL.. Blood Trans Acceptable to Pt?Yes
Menu - All
Ambulatory Views
Full screen
Print
43 minutes ago
Ambulatory Views
Inpatient Views
Provider View
Operative Summaries
Physician Handoff
SBAR
Demographics
Results Review
I/view/I and O
Allergies
Orders
Medication List
Reports/Documents
Provider Documentati...
Pending Studies
MAR Summary
eMAR
Form Browser
Histories
Add
100%
Neurology Pro...
Ambulatory W...
Ambulatory Su...
Discharge Sum...
Ambulatory Qu...
Anes. Acute Pa...
Discharged
Inpatient
Discharge Meds as Rx
All
Submitted Charges (19)
Selected Visit
CHARGE 95937 Neuromusc junc tst,1mth/nrv Completed 11/21/17 15:52
CHARGE 95961 Func cort/subcor map/1st hr Completed 11/21/17 15:52
CHARGE 95939 TcMEP, upper and lower lims Completed 11/21/17 15:52
CHARGE 95938 Short-lat SSEP,up&low limbs Completed 11/21/17 15:52
CHARGE G0453 Cont IONM out OR,1:1/15 min Completed 11/21/17 15:52
CHARGE 99233 Sbqs IP care-High (35 min) Completed 11/02/17 16:21
CHARGE 99233 Sbqs IP care-High (35 min) Completed 10/26/17 13:23
CHARGE 99223 Init IP care-High (70 min) Completed 10/24/17 15:42
Order: CHARGE 95939 TcMEP, upper and lower lims
Order Details: 26 Professional Component, Thoracic myelopathy, Date of Service: 10/16/17
Order Comments:
Order Date/Time: 11/21/2017 15:52
Start Date/Time: 11/21/2017 15:52
Status: Completed
Ordered by: GONZALEZ MD, ANDRES
Nonphysician Telephone - Est Pat
CHARGE 98966 Non-MD Phone Assess 5-10m
CHARGE 98967 Non-MD Phone Assess 11-20m
CHARGE 98968 Non-MD Phone Assess 21-30m
Nonphysician Online Service - Est Pat
CHARGE 98969 Non-MD Online Evl/Mgmt
lyze neurostim simple
/z,cmpx crn nrv;prg 1hr
/z neuro,cmpx cran nrv/adtl
/z neustim brain;prg,1hr
neur,cmpx brn/adl 30mn
Muscle Function: EMG & NC
CHARGE 95861 Needle EMG, 2 extremity 26 Professional Component
CHARGE 95863 Needle EMG, 3 extremity 26 Professional Component
CHARGE 95864 Needle EMG, 4 extremity 26 Professional Component
CHARGE 95867 Ndl EMG,crania nrv musc,uni 26 Professional Component
CHARGE 95868 Ndl EMG,crania nrv musc,bil 26 Professional Component
CHARGE 95870 Ndl EMG limited,1 musc 26 Professional Component


Task Edit View Patient Chart Links Notifications Navigation Help
Home Message Center Patient List Schedule Viewer Physician Handoff Discharge Dashboard KeckCare Assist Case Selection
Lexicomp iMed Consent Cures Call Schedule Antibiogram/ASP
Tear Off Suspend Charges Exit Calculator Explorer Menu AdHoc Medication Administration PM Conversation Depart Communicate
Direct Address Book
Loc:USC-5S; 5115; A
Inpatient [Admit Dt:10/16/2017 05:31:00 PDT Disch Dt: 10/26/2017 13:02:00 ... Attending:
Age:62 years
DOB
Sex
** Allergies **
MyUSC Chart: No Not Interested [11/06/2...
GMLOS | DRG: 9.6 day(s) | 456 - SPL.. Blood Trans Acceptable to Pt?Yes
MRN
Fin#
List Recent
Menu - All
Ambulatory Views
Full screen Print 44 minutes ago
Ambulatory Views
Inpatient Views
Provider View
Operative Summaries
Physician Handoff
SBAR
Demographics
Results Review
IView/I and O
Allergies Add
Orders Add
Medication List Add
Reports/Documents Add
Provider Documentati... Add
Pending Studies
MAR Summary
eMAR
Form Browser
Histories
Neurology Pro...
Ambulatory W...
Ambulatory Su...
Discharge Sum...
Ambulatory Qu...
Aries. Acute Pa...
Discharged
Inpatient
Discharge Meds as Rx
All
Submitted Charges (19)
Selected Visit
Services
Physician Telephone E & M - Est Pat
CHARGE 99441 MD phone Evl/Mngmt 5-10min
CHARGE 99442 MD Phone Eval/Mgt 11-20min
CHARGE 99443 Phone Eval/Mgmt 21-30min
CHARGE 95937 Neuromusc junc tst,1mth/nrv Completed 11/21/17 15:52
CHARGE 95961 Func cort/subcor map/1st hr Completed 11/21/17 15:52
CHARGE 95939 TcMEP, upper and lower lims Completed 11/21/17 15:52
CHARGE 95938 Short-lat SSEP,up&low limbs Completed 11/21/17 15:52
CHARGE G0453 Cont IONM out OR,1:1/15 min Completed 11/21/17 15:52
CHARGE 99233 Sbqs IP care-High (35 min) Completed 11/02/17 16:21
CHARGE 99233 Sbqs IP care-High (35 min) Completed 10/26/17 13:23
CHARGE 99223 Init IP care-High (70 min) Completed 10/24/17 15:42
Order: CHARGE 95937 Neuromusc junc tst,1mth/nrv
Order Details: 26 Professional Component, Thoracic myelopathy, Date of Service: 10/16/17
Order Comments:
Order Date/Time: 11/21/2017 15:52
Start Date/Time: 11/21/2017 15:52
Status: Completed
Ordered by: GONZALEZ MD, ANDRES
CHARGE 95971 Analyze neurostim simple
CHARGE 95974 Anlyz,cmpx crn nrv;prg 1hr
CHARGE 95975 Anlyz neuro,cmpx cran nrv/adtl 30min
CHARGE 95978 Anlyz neustim brain;prg,1hr
CHARGE 95979 Anlz neur,cmpx brn/adl 30mn
Muscle Function: EMG & NC
eedle EMG, 1 extremity 26
eedle EMG, 2 extremity 26
eedle EMG, 3 extremity 26
eedle EMG, 4 extremity 26
dl EMG,crania nrv musc,uni 26
Professional Component
CHARGE 95868 Ndl EMG,crania nrv musc,bil 26
Professional Component
CHARGE 95870 Ndl EMG limited,1 musc 26
Professional Component

10

MRI Brain w/o Contrast
* Final Report *

[redacted]

Document Type:	MRI Brain w/o Contrast
*Date - Date of Service:	October 19, 2017 12:30 PDT
Document Status:	Auth (Verified)
Document Title:	MRI Brain w/o Contrast
Author:	TEJERINA FEL, MANFRED on October 20, 2017 08:20 PDT
Authenticated By:	SHIROISHI MD, MARK on October 20, 2017 17:35 PDT
Encounter info:	[redacted] KH-USC, Inpatient, 10/16/2017 - 10/26/2017

* Final Report *

Reason For Exam
ischemic stroke on CT

REPORT
MR OF THE BRAIN WITHOUT CONTRAST

CLINICAL HISTORY: Ischemic stroke on CT. Recent hypotension.

Comparison: CT head from earlier today

Technique: T1-weighted sagittal and axial images, FLAIR and T2-weighted axial images, gradient echo axial images, and trace diffusion images with corresponding ADC maps in the axial plane of the brain were obtained for evaluation.

FINDINGS:
There are multiple areas of restricted diffusion involving the bilateral occipital/frontoparietal cortices, thalami and cerebellum consistent with multifocal acute infarcts secondary to hypotensive/hypoxic ischemic injury.

The ventricles and sulci are prominent due to diffuse cerebral age-related volume loss. Prominent bilateral centrum semiovale lacunar infarcts are noted. There is extensive confluent periventricular and centrum semiovale deep and subcortical white matter T2 hyperintensity which is nonspecific but likely related to chronic small vessel ischemic disease. There is no shift of midline structures. No significant extra-axial collections of fluid or blood are demonstrated

The sella and parasellar regions are unremarkable in appearance. The normal signal flow-voids of the vessels of the skull base are identified and unremarkable in appearance.

Mild fluid is noted in the right mastoid air cells. The visualized orbits, left mastoid air cells, and paranasal sinuses are unremarkable in appearance. No focal lesions of the bony calvarium or soft tissues of the scalp are identified.

IMPRESSION:
1. Multifocal supratentorial/infratentorial acute infarcts as described concerning for hypotensive injury.
2. No acute hemorrhage or midline shift.
3. Age-related volume loss and severe chronic small vessel ischemic disease.

Signature Line
***** Final Report *****

[redacted]

//

MRI Brain w/o Contrast
* Final Report *

[redacted]

Dictated: 10/20/2017 8:20 am Dictated by: TEJERINA FEL, MANFRED
Fellow/Resident: TEJERINA FEL, MANFRED
I certify that I have directed and participated in the above procedure, reviewed the images, and agree with the interpretation.
Electronic Signature: 10/20/17 5:35 pm Signed by: SHIROISHI MD, MARK

Disclaimer: This document was generated using voice recognition system, which may produce sporadic inaccurate transcription or nonsensical phrases.

IMAGE
This document has an image

[redacted]

12

Operative Report
* Final Report *

[redacted]

Document Type:	Operative Report
*Date - Date of Service:	October 16, 2017 05:31 PDT
Document Status:	Auth (Verified)
Document Title:	Operative/Procedure
Author:	HAH MD, RAYMOND on October 22, 2017 21:48 PDT
Authenticated By:	HAH MD, RAYMOND on October 26, 2017 07:11 PDT
Encounter info:	[redacted] KH-USC, Inpatient, 10/16/2017 - 10/26/2017
Contributor system:	USC_EMDATF

* Final Report *

Operative/Procedure
DATE OF SERVICE: 10/16/2017

Patient Name: [redacted]
Medical Record #: [redacted]
Date of Birth: 07/06/1956

SURGEON: Raymond Hah, M.D.

CO-SURGEON: Frank Acosta, M.D.

ASSISTANT: Ben Strickland, M.D.

PREOPERATIVE DIAGNOSIS:
1. Thoracolumbar kyphosis secondary to compression fractures.
2. Thoracolumbar compression fractures.
3. Chronic back and leg pain.
4. Sagittal plane spinal imbalance.
5. History of prior thoracolumbar kyphoplasty.

POSTOPERATIVE DIAGNOSIS:
1. Thoracolumbar kyphosis secondary to compression fractures.
2. Thoracolumbar compression fractures.
3. Chronic back and leg pain.
4. Sagittal plane spinal imbalance.
5. History of prior thoracolumbar kyphoplasty.

OPERATIVE PROCEDURE:
1. T4 to pelvis posterior spinal fusion with instrumentation.
2. Harvesting of iliac crest autograft for spinal fusion.
3. T11-12, T12-L1 and L1-2 posterior column osteotomies which are Smith-Peterson osteotomies.
4. Use of local autograft for spinal fusion.
5. Manipulation of the spine under anesthesia.
6. Use of intraoperative neuromonitoring.

[redacted]

Operative Report
* Final Report *

[redacted]

7. Use of intraoperative fluoroscopy with interpretation.
8. Use of intraoperative frameless stereotactic CT navigation.
9. Use of morcellized allograft for spinal fusion.
10. Use of osteoinductive agent for spinal fusion.
11. Reconstruction of interspinous ligament with semitendinosus allograft.

ANESTHESIA: General endotracheal tube.

INDICATIONS FOR PROCEDURE: [redacted] a 61-year-old male with a history of the above mentioned diagnoses. He failed conservative nonoperative treatment and elected to proceed with surgery after thorough discussion of the risks, benefits and alternatives. Surgical consent was signed and documented in the chart prior to the procedure.

Due to the complexity of the case, I was requested by Dr. Frank Acosta to assist as co-surgeon as there was no qualified resident available to perform in this regard. We simultaneously did our respective sides of the procedure. I performed the left sided as he performed the right side.

PROCEDURE: After the patient was properly identified and informed consent was confirmed, he was brought to the operating room and general endotracheal tube anesthesia was induced without incident. He received preoperative antibiotics. He was positioned prone on the Jackson table with all pressure points appropriately padded. The back was shaved, prepped and draped in the usual sterile fashion. A final timeout was performed.

A #10 blade was used to make a midline incision. A combination of electrocautery and self-retaining retractors were used to dissect to expose bilateral lamina transverse process, facets from T4-L5. In addition, the bilateral sacral ala and iliac crest were dissected and exposed with handheld and self-retaining retractors and electrocautery.

A 3 x 3 x 3 cm portion of iliac crest bone was harvested bilaterally with a 0.50 osteotome which was safe for use as iliac crest autograph in later spinal fusion.

Next, using standard anatomic landmarks, pedicle screws were placed bilaterally from T4-S1. Screw tracks were created, tapped and appropriately-sized screws were inserted. All neuromonitoring remained stable. Bilateral iliac bolts were also placed. Using anatomic landmarks, the screw tracts were created, palpated, tapped and appropriate-sized screws were inserted. Of note, T12 and L1 these screws were not placed as these were the level of compression fractures and they were not able to be placed. At T11 there was a screw on the left but left out on the right.

[redacted]

Operative Report
* Final Report *

[redacted]

Next, a spinous process clamp was attached at the L5 spinous process and the T10 spinous process, a frame was attached to the spinous process clamps and the intraoperative CT scanner was brought into position. After a series of intraoperative localization fluoroscopic images, a series of intraoperative frameless stereotactic CT navigation scans were obtained from T4 to the pelvis. All instruments were registered to the reference frame and frameless stereotactic CT navigation system. Once the CT scans had been obtained the placement of the screws were reassessed. The left T4 screw was in the lateral position. This was repositioned using the frameless stereotactic CT navigation system and registered instruments. The right-sided iliac bolt was repositioned in a more medial position as it was noted to have breached the outer cortex. The right-sided L5-S1 screws were placed using the frameless stereotactic CT navigation system and registered instruments. The screw tracks created, palpated and appropriate-sized screws inserted. All neuromonitoring remained stable and in the L1 screws they all stimulated above triggered EMG threshold.

Next, the spinous processes from T8-L4 were harvested with Leksell rongeur and morcellized for use in spinal fusion as harvested local autograft.

At this point we began with our posterior column osteotomies. We did this at the T11-12, T12-L1 and L1-2 levels in the following fashion: A high speed drill was used to perform bilateral laminotomies. Bilateral superior and inferior facetectomies were performed with a combination of high speed drill and Kerrison rongeur. The osteotomy was carried lateral with Kerrison rongeur and the underlying ligamentum flavum was removed. Adequate decompression and completion of the osteotomy was confirmed through the Woodson dissector and hemostasis was obtained with Surgiflo and bipolar electrocautery.

In a similar fashion, we did this at T12-L1 and L1-2 for a total of 3 Smith-Peterson osteotomies. Again, a high speed drill was used to perform a laminotomy. Bilaterally the underlying ligamentum flavum was removed with Kerrison rongeur. Bilateral inferior and superior facetectomies were performed with a combination of high speed drill and Kerrison rongeur and was carried laterally. Completion of the osteotomy was confirmed and the Woodson dissector and hemostasis obtained with Surgiflo and bipolar electrocautery.

The interspinous ligament was reconstructed at the superior aspect of the construct by reinforcing a section of semitendinosus allograft with a #2 fiber loop and weaving this from approximately T3-6.

Appropriate-sized rods were sized, cut, contoured and secured to

[redacted]

15

Operative Report
* Final Report *

[redacted]

the pedicle screws first on the left of the appropriate set screws, a cantilever force was applied to the rod across the posterior column osteotomy site as to reduce the patient's kyphosis. All neuromonitoring remained stable. The rod was then secured to the pedicle screws from T4 to the pelvis and all of these were final tightened. Next, on the right side an appropriate-sized rod was sized, cut, contoured and secured to the pedicle screws from T4 to the pelvis using appropriate set screws. In a similar fashion a cantilever maneuver was again applied across the osteotomy site as to reduce the patient's kyphosis entailed manipulation of the spine under anesthesia. All neuromonitoring remained stable. Facet screws were final tightened. The wound was pulse lavaged with 6 liters of dilute bacitracin. The remaining facet joints, lamina and transverse processes from T4 to the pelvis were decorticated with a high speed drill and grafted with a combination of 2 large Infuse osteoinductive BMP kits as well as 80 mL of morcellized Osteocel autograft and 60 mL of cancellous autograft chips as well as the previous harvested local autograft and harvested iliac crest autograft.

Vancomycin and tobramycin powder were applied to the paraspinal muscles and the wound was closed in layer over two 19 Blake drains. A #1 PDS for the fascia, 2-0 Vicryl for the subdermal layers and staples for the skin. The wound was dressed with sterile dressings. The patient was returned to the supine position. All neuromonitoring remained stable.

During the case, anesthesia team attempted transfusion of the patient multiple times with each attempt resulting in profound hypotension. At the end of the procedure, the patient was unstable in terms of his heart rate and blood pressure and so our closure proceeded rapidly and the patient was then returned to the supine position and the anesthesia team continued to stabilize the patient. He required advanced resuscitation including series of cardiopulmonary resuscitation. All neuromonitoring remained stable throughout the entirety of this. Once stabilized by the anesthesia team, he was taken intubated to the ICU in critical condition. All sponge and needle counts were correct x2.

Patient went into cardiac arrest

Again, due to the complexity and magnitude of the case and the patient's spinal deformity, I was requested by Dr. Acosta to assist as co-surgeon as there was no qualified resident to serve in this regard.

RH/mk
D: 10/22/2017 9:48:27 PM PST
T: 10/23/2017 1:43:57 AM PST
J#: [redacted]

[redacted]

16

Operative Report
* Final Report *

[redacted]

Signature Line
Electronically Signed On 10/26/17 07:11 AM PDT

RAYMOND HAH

[redacted]

Exhibit 31

SURGICAL NEUROPHYSIOLOGY
BILLING SLIP

DATE: 9-18-17 PROCEDURE Right Parotidectomy

DIAGNOSIS Giant Cell Tumor

QTY	CDM #	DESCRIPTION	CPT#		QTY	CDM #	DESCRIPTION	CPT#
	748-5940	OR MONITORING PER EVERY 15 MIN IN	95940			748-5830	*ELECTROCORTICOGRAPHY*	95829
	748-5938	SOMATOSENSORY EVP-UPPER / LOWER LIMB	95938			748-5822	EEG, ANEURYSM	95822
	748-5939	CENTRAL MOTORS EP – UPPERS / LOWER (TCeMEP)	95939			748-5871	VISUAL EVOKED POTENTIAL	95930
	748-5861	EMG 2 EXTREMITY	95861			748-5864	EMG 4 EXTREMITY	95864
	748-5937	NEUROMUSCULAR JUNCT TEST (TRAIN OF FOUR)	95937			748-5873	EMG CRANIAL BILATERAL	95868
	748-2587	AUDITORY EVOKED POTENTIAL	92585			748-5872	EMG CRANIAL UNILATERAL	95867
	748-6040	SOMATOSENSORY EVP-UPPER LIMB	95925			748-5926	CENTRAL MOTORS EP – UPPERS (TCeMEP)	95928
	748-6042	SOMATOSENSORY EVP-LOWER LIMB	95926			748-5929	CENTRAL MOTORS EP – LOWERS (TCeMEP)	95929
	748-5978	DEEP BRAIN STIMUL., 1ST	95978			748-5957	BRAIN MAPPING 1ST HR	95961
	748-5979	DEEP BRAIN STIMUL., ADDTL 30 MIN'S	95979			748-5958	BRAIN MAPPING ADDTL HR	95962

MISCELLANEOUS CHARGES

QTY	CDM #	DESCRIPTION	CPT#	TOTAL CHARGES
	748-8999			$
	748-8999			$

REPORTING OF CRITICAL VALUES

CRITICAL CHANGES/ FINDINGS IDENTIFIED: _____

TIME CRITICAL CHANGES/ FINDINGS IDENTIFIED: _____

PHYSICIAN NOTIFIED: _____ TIME NOTIFIED: _____

READ BACK OBTAINED? _____ TIME OF READ BACK: _____

INTRAOPERATIVE MONITORING

Initial data: 1920
End IONM: 2225
TOTAL MONITORING HOURS: 4hrs 10min TECH IN 1600 TECH OUT 2300

CONFIRMED BY X Kristen Ng AI Adam Ibrahim
Surgery RN - Name Initials Needs urine

Keck Hospital of USC
1500 San Pablo Street

DOB: [redacted]
DOS: [redacted]
FIN: [redacted]
MRN

Facial Nerve Monitoring

Date	9/18/17
surgeon	Dr. Ko Kat, Niels C. Tyson
Procedure	Right Parotidectomy
Tech	Adam Ibrahim CNIM

[redacted] DOB: [redacted] DOS: [redacted] MRN: [redacted] FIN: [redacted]

P. 1/2

		Frontalis		Orbicularis Oculi		Orbicularis Oris		Mentalis	
Time	Event	Threshold	amplitude	Threshold	amplitude	Threshold	Amlitude	Threshold	Amplitude
1600	Tech arrival in OR	mA	μV	MA	μV	MA	μV	MA	μV
	Case delayed to 1830								
1847	PT IN ROOM								
1909	Succinylcholine in								
1920	Initial EMG data								
1940	Time Out								
1941	Incision								
2012	Dissection in progress (2st specimen sent)								
2030	Stim Response	0.5 mA	136 μV	0.5	69	0.5	124	0.5	124
2047	SpEMG Activity/Transient Spike		10 μV		12 μV		327 μV		128 μV
2111	Stim Response	0.5	438 μV	0.5	409 μV	0.5	200 μV	0.5	122 μV
2212	SpEMG Bursts		5 μV		130 μV		333 μV		189 μV
	Silent between freq bursts								
	Middle + lower branches								
	Tumor Excision/Retraction								
2209	Orbicularis Oris +								
	Mentalis Electrodes	Mistakenly pulled by surgeon upon entering							
	the patients Mouth. NM offered replacement electrodes (sterile)								
	Surgeon declined. Disabled Orb. Oris + Ment.								
2212	continued dissection upper branch monitoring only (Frontalis + Orb. Oculi)								
2215	Tumor Removed + sent for Frozen section. Parotidectomy Complete								
2217	Final T-EMG	0.5 mA	427 μV	0.5 mA	337 μV				
	Surgeon aware: No Orb Oris + No Ment.								
2220	Surgeon dismissed IONM. stated OR team will remove sharps remaining								
	count: 3 removed @ 2209 5 remaining in right Face 2 remaining on right Chest								
	Nurse informed + Aware								

End IONM 2225, remains SpEMG Silent Surgeon informed + Aware
No lasting irritation/Fibrilation potentials
He Acknowledged "Ok Thank You!"

Facial Nerve Monitoring

[redacted]
DOB: [redacted]
DOS: [redacted]
MRN: [redacted] FIN: [redacted]

Date	9-18-17
surgeon	Dr. Kokot, Niels C. Tyson
Procedure	Right Parotidectomy
Tech	Adam Ibrahim CNIM
P. 2/2	

		Frontalis		Orbicularis Oculi		Orbicularis Oris		Mentalis	
Time	Event	Threshold	amplitude	Threshold	amplitude	Threshold	Amlitude	Threshold	Amplitude
2225	End IONM								
2300	NM out								
	Monitoring Plan:								
	4C SpEMG+TEMG								
	CN VII only per								
	Surgeon No TOF.								
	1: Frontalis 2: Orb Oris								
	3: Orb Oculi 4: Mentalis								
	Monopolar Probe provided								
	by Medsurant								
	No probes available to IM								
	@ Facility -								
	9-18-17								
	Adam Ibrahim								
	562-685 2679								
	[signature]								

Medsurant Monitoring LLC
Confidence for Better Outcomes™
A Medsurant Holdings Company

Physician Orders

Intraoperative Neurophysiological Monitoring (IONM)

Approx Date of Surgery: 9-18-17

[redacted]
DOB: [redacted]
DOS: 09/17/2017 01:38
MRN: 0[redacted]
FIN [redacted]

*Date of Birth: 12/22/76

*Ordering Physician Signature: _____ 9-18-17 Date

*Ordering Physician: Kevin Lin
Printed Name

Medsurant Monitoring LLC
Confidence for Better Outcomes™
A Medsurant Holdings Company

[redacted]
DOB: [redacted]
DOS: 09/1[redacted]/2017 01:38
MRN: FIN: [redacted]

Service Verification Form

Intraoperative Neurophysiological Monitoring (IONM)

Date of Service:	9-18-17
Hospital:	Keck USC
Surgeon:	Dr. Kokot
Medsurant Neuromonitorist:	Hadam Ibrahim REPT CNIM

NOTES: Right Parotidectomy
NM Arrival: 1600 NM out: 2300
Sched start: 1700
Pt in room: 1847
End IONM: 2225 (Surgeon dismissed IONM following Tumor Excision & Final T-EMG Prior to closure.)

Facility Representative Signature: x [signature] 9-18-17
Date

Facility Representative Name: Kristin RN
Printed Name

*** Please refer to IONM Medical Report and Invoice for detail of services provided and facility fees ***

Medsurant Contact for Billing Questions and PO Numbers:
Kristen Renninger | (484) 351-8459 x 223 | HospitalAR@MedsurantHoldings.com

Local Account Executives:
Grant Bechtold | (310) 569-8429 | GBechtold@MedsurantHoldings.com
Gina Cervantes | (310) 956-8269 | Gina@MedsurantMonitoring.com

Case Scheduling:
(949) 613-4743 | CAscheduling@medsurantmonitoring.com

Cheongsiatmoy, Justin

From: Matthews, Angelique
Sent: Thursday, September 28, 2017 8:28 AM
To: Cheongsiatmoy, Justin
Subject: FW: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC
Attachments: [redacted]DR KOKOT.pdf; [redacted] KOKOT.pdf; [redacted] IONM Billing Sheet 091817 DR KOKOT.pdf; [redacted] Event Log 091817 DR KOKOT.pdf

From: Adam Ibrahim [mailto:[redacted]
Sent: Wednesday, September 27, 2017 4:52 PM
To: Matthews, Angelique <[redacted]
Subject: Re: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Angelique,

Forgive me, but I sent you all the documents I have for Dr. Kokot's case. Which was a NIM machine only case. I was told by Chris Hanson that there was no remote oversight, nor Medical Report for these cases. Just the handwritten Event Log and Tech Billing Sheet.
I've attached what I have again. Again there was no neurologist oversight.
Please contact me by phone with any questions.

Thank you,

Adam Ibrahim R. EP T, CNIM
Clinical Supervisor
Medsurant Monitoring
Cell [redacted]

Medsurant Monitoring
A Medsurant Holdings Practice

Inc. 5000

From: Matthews, Angelique <[redacted]
Sent: Wednesday, September 27, 2017 3:16:20 PM
To: Adam Ibrahim
Subject: RE: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Hello,

Can you please do the report for the case that you covered?

Thank you!
Angelique Matthews

From: Adam Ibrahim [redacted]
Sent: Friday, September 22, 2017 4:32 PM
To: Matthews, Angelique <[redacted]
Cc: Micah Gunn [redacted]
Subject: Re: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Angelique,

Regarding Medsurant Monitoring cases on 09/18:

1.
Surgeon: Dr Wang
Tech: M. Gunn
RP: Dr. Jon Chen
**Documents sent

2.
Surgeon: Dr. Kokot
Tech: A. Ibrahim
RP: None (NIM monitoring only)
**No documents sent via email as this was a paper only recording with no remote oversight.
I'll include a copy of all documentation for the Dr. Kokot case now, just in case.

Please let me know if we have satisfied your needs ☺

Thank you,

Adam Ibrahim R. EP T, CNIM
Clinical Supervisor
Medsurant Monitoring
Cell: (562) 685-2679

Medsurant Monitoring
A Medsurant Holdings Practice

Inc. 5000

From: Adam Ibrahim
Sent: Friday, September 22, 2017 2:55:48 PM
To: Matthews, Angelique
Cc: Micah Gunn
Subject: RE: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Angelique,

I will look into it and get back to you ASAP. Apologies for any confusion or delay.

Thank you,
Adam Ibrahim REPT, CNIM
[redacted]

On Sep 22, 2017 2:25 PM, "Matthews, Angelique" [redacted] wrote:

Hello,

I have a case from him that was done by Dr. Wang, could he have also done the case by Dr. Kokot? The OR report has your name on it so that's why I thought it would have been you to do that case.

Thank you,
Angelique Matthews

From: Adam Ibrahim [redacted]
Sent: Friday, September 22, 2017 1:57 PM
To: Matthews, Angelique [redacted]
Cc: Micah Gunn [redacted]
Subject: RE: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Hello Angelique,

That would be Micah Gunn.

Micah,
Please email the Cascade file, Chat log and USC Medical report to Angelique for your case with Dr. Chen 9/18/17.

Thank you,
Adam Ibrahim REPT, CNIM
Clinical Supervisor
[redacted]

On Sep 22, 2017 12:58 PM, "Matthews, Angelique" <[redacted] wrote:

Hello,

Did you do a case here on the 18th? If you did can you please send me the data file and note.

Thank you,
Angelique Matthews

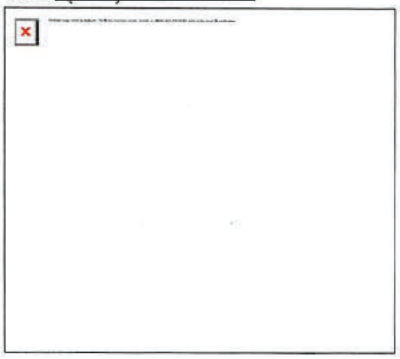
From: Adam Ibrahim [redacted]
Sent: Tuesday, September 12, 2017 9:10 PM
To: Matthews, Angelique <[redacted]
Cc: Gonzalez, Andres [redacted]
Subject: Dr. Chen Room 25 Left And Right Craniotomies @ Keck USC

Hello Angelique,

Please find the attached Cascade file, Chatlog, and Medical Report for our smooth case today with Dr. Thomas Chen.
Let me know if any further information is required.

Thank you,

Adam Ibrahim R. EP T, CNIM
Clinical Supervisor
Medsurant Monitoring
Cell: [redacted]



The information in this email message is intended for the individual or entity named in this transmission and may contain information that is privileged and confidential. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any distribution or duplication of this communication is strictly prohibited. Any inadvertent receipt by you of such confidential information is not intended to constitute a waiver of any privilege. If you have received this communication in error, please notify us immediately. Thank you.

The information in this email message is intended for the individual or entity named in this transmission and may contain information that is privileged and confidential. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any distribution or duplication of this communication is strictly prohibited. Any inadvertent receipt by you of such confidential information is not intended to constitute a waiver of any privilege. If you have received this communication in error, please notify us immediately. Thank you.

The information in this email message is intended for the individual or entity named in this transmission and may contain information that is privileged and confidential. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any distribution or duplication of this communication is strictly prohibited. Any inadvertent receipt by you of such confidential information is not intended to constitute a waiver of any privilege. If you have received this communication in error, please notify us immediately. Thank you.

The information in this email message is intended for the individual or entity named in this transmission and may contain information that is privileged and confidential. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any distribution or duplication of this communication is strictly prohibited. Any inadvertent receipt by you of such confidential information is not intended to constitute a waiver of any privilege. If you have received this communication in error, please notify us immediately. Thank you.
The information in this email message is intended for the individual or entity named in this transmission and may contain information that is privileged and confidential. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any distribution or duplication of this communication is strictly prohibited. Any inadvertent receipt by you of such confidential information is not intended to constitute a waiver of any privilege. If you have received this communication in error, please notify us immediately. Thank you.

Exhibit 32

USC University Hospital
Intraoperative Neurophysiology
1500 San Pablo St. Suite 2500. Los Angeles, CA 90033 (323) 442-8852

DATE OF STUDY: 9/8/2008

STUDY #[redacted]

REFERRING PHYSICIAN: Uttam Sinha M.D.

PATIENT HISTORY: 76 yo male with a neck mass

MONITORING MODALITIES: Cranial bilateral (95868)

RESULTS: During neck mass resection the recurrent laryngeal nerve is monitored.

Electrodes were put in place prior to surgery and removed postoperatively. During anesthesia induction, recording electrodes were placed endotracheally at the level of the vocal cords, and the OR physicians were promptly made aware of any spontaneous discharges suggesting irritation of the relevant nerves.

2 hours were spent monitoring. The surgeons were kept informed of the monitoring status and any changes.

ANDRES A. GONZALEZ, M.D.
Electronic signature 10/24/2008 12:34:34 PM

USC University Hospital
Intraoperative Neurophysiology
1500 San Pablo St. Suite 2500. Los Angeles, CA 90033 (323) 442-8852

EVENT LOG

Time	Text
10:40	Begin incision
10:55	Exposure
11:00	Surgeon asked if we have significant activity
11:08	Removed neck mass
11:30	End monitoring

Exhibit 33

DATE OF STUDY: 01/06/2009

STUDY #: [redacted]

REFERRING PHYSICIAN: Dennis Maceri, M.D.

PATIENT HISTORY: This is a 43-year-old male with a left parotid mass diagnosed with left pleomorphic parotid adenoma.

RESULTS: During the left parotidectomy, the facial nerve was monitored. Electrodes were put in place prior to surgery and removed postoperatively. After anesthesia induction, recording electrodes were placed subcutaneously in the orbicularis oris and orbicularis oculi and masseter muscles, and the OR physicians were promptly made aware of any spontaneous discharges suggesting irritation of the relevant nerves.

Stimulation of the cranial nerve produced physiologic responses in the orbicularis oris, orbicularis oculi, and masseter in order to help the surgeon identify various neural structures.

Approximately 3 hours were spent monitoring. The surgeons were kept informed of the monitoring status and any changes.

ANDRES GONZALEZ, M.D.

DATE 1/23/09 TIME 102

Dictated by: DHIRAJ JEYANADARAJAN, M.D.
md
D: 01/21/2009 9:20 A
T: 01/21/2009 2:18 P
J: [redacted]

CC:

USC UNIVERSITY HOSPITAL
1500 San Pablo Street
Los Angeles, CA 90033

CRANIAL NERVE MONITORING

[redacted]
MR # [redacted]
ACCOUNT # [redacted]
387850

Neurophysiology Department

Date 1/6/09

121113

REASSESSMENT

I ANXIETY RELATED TO PERCEIVED THREAT TO BIOLOGIC INTEGRITY SECONDARY TO INVASIVE PROCEDURE

IDENTIFICATION / VERIFICATION

Identified
- ☑ Patient ☐ ID Band
- ☑ Surgery/Consent
- ☐ Site ☐ Surgeon

Verified by
- ☑ Patient ☐ Guardian/Parent
- ☑ Physician ☐ Medical Record

COGNITIVE / EMOTIONAL STATUS

- ☑ Awake ☐ Lethargic
- ☐ Agitated ☐ Responsive
- ☐ Anxious ☑ Oriented
- ☐ Calm ☐ Unresponsive
- ☐ Confused ☐ Disoriented
- ☐ Alert ☐ Sedated
- ☐ Drowsy ☑ Pain 0-10 0
- ☐ Hostile

☐ Alcohol Abuse History ☐ Drug Abuse History
☐ Other Factors 0

SENSORY / COMMUNICATION LIMITATIONS

☑ No Limitations noted

Limitations ☐ Hearing Deficit ☐ Language Deficit ☐ Limited Mobility ☐ Visual Deficit ☐ Memory Deficit

Language ☑ English ☐ Spanish ☐ Chinese ☐ Vietnamese ☐ Other

Translator's name

II RISK FOR INFECTION RELATED TO INVASIVE PROCEDURES

☐ No Factors Identified ☑ See Preop Assessment ☐ Poor Hygiene ☐ Concurrent Disease Process ☐ Infectious Process ☐ Decreased Immune Response

III RISK FOR INJURY OR IMPAIRMENT

ALLERGIES ☐ None ☐ Yes — NPO since midnight

Presents With ☐ IV ☐ EKG ☐ O2 ☐ Traction ☐ Foley Catheter ☐ Other

Preop Skin Condition ☑ Warm ☑ Dry ☐ Intact ☐ Cool ☐ Pale ☐ Diaphoretic ☐ Other

☐ Rash, Lesions, Bruise, Swelling Site/Description * pacemaker lead still in chest

Risk Factors ☐ None ☑ Cardiac ☐ Hx of Venous thromboembolism ☐ Pacemaker ☐ Obesity ☐ Edema ☐ Diabetes ☐ Immunosuppression ☑ Other HTN,

ROM Limitations ☑ None ☐ Yes/Describe

Notes appy, pacemaker implant 3 removal

RN Signature — Time 1000

PLAN / IMPLEMENTATION

I OUTCOME - PATIENT RELATES AN INCREASE IN PSYCHOLOGICAL AND PHYSIOLOGIC COMFORT

☑ OR Protocol explained to patient ☑ Patient encouraged to ask questions & verbalize concerns
☐ Conveyed caring supportive attitude, initiated comfort measures ☑ Pt acknowledged preop teaching ☑ Remained with patient during induction
Other

II OUTCOME - PATIENT'S SURGERY PERFORMED USING ASEPTIC PRACTICES AND IN A MANNER TO PREVENT CROSS-CONTAMINATION

Hair Removal ☐ None ☑ Clip ☐ Other — ☑ Antibiotic(s) Time Given 1125 ☐ N/A Wound Classification ☑ I ☐ II ☐ III ☐ IV

Skin Prep ☐ None Betadine ☐ Scrub ☑ Solution ☑ Gel ☐ Alcohol ☐ Dry prior to draping ☐ Other chlorapep Site Left face to ear, hair

Urinary Catheter Inserted By 0 Type/Size 0 ☐ Catheter Removed Output

Implants ☐ None ☑ Yes, See Implant Tracking Log

Packing/Drains/Site

Dressing Dermabond, fluff Gauze and Gauze Bandage to L ear

Therapeutic Device 0 Applied By 0 ☐ Outside Vendor

III OUTCOME - PATIENT FREE FROM S & S OF INJURY, RELATED TO POSITIONING, EXTRANEOUS OBJECTS AND EQUIPMENT

ESU / ARGON

ID # ES Pad Lot # 082241
☑ Bipolar HP23408A
☐ ABC ☐ APC 0
☐ Other
☐ Monopolar Mode ☑ Blend ☐ Pure
Coag Setting 25 Cut Setting 35
Pad Applied By M. Kim RN
Site R thigh
Post Procedure Skin Condition at Pad Site
☑ Clear/Intact
☐

POSITIONING

☑ Supine ☐ Prone ☐ Lateral ☐ R ☐ L ☐ Jackknife
☑ Head ↓
☑ Lithotomy Stirrups ☐ Boot ☐ Knee ☐ Sling
☑ Safety Strap/Site across thighs ☑ Warm Blanket
Arm on Arm Board ☑ R ☑ L By 0
Arm Tucked at Side ☐ R ☐ L By staff
☑ Ulnar Nerves Padded ☐ Body Alignment Maintained
padded on hands, elbows, heels w/ foams, pillow & knees
Positioned By

OTHER

PAS/SCDs ☐ Thigh ☑ Calf 0 during
Antiembolytic Stockings ☑ Thigh ☐ Calf
Laser ☐ Argon ☐ CO_2 ☐ Yag
☐ Laser Safety Protocol Implemented NA
X-ray ☐ Portable ☐ Fluoro Time
Heating / Cooling ☐ N/A ☐ Water
☑ Air ID# 1102 Setting 38°C
☑ Pt Temps - See Anesthesia Record

COUNTS Initial Count Done by M. Kim RN / L. Espitia RN

Type	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	N/A
Sponge	✓		✓				
Needle	✓		✓				
Instrument	0		0				

Circulator M. Kim RN / M. Kim RN

Surgeon Notified of Count ☑ Yes ☐ No

Scrub R. Aparicio ORT / R. Hamilton

Action if Incorrect ☑ N/A ☐ X-ray Taken

TOURNIQUET

☐ Tested Preop ID#
Checked By
Applied By
Site
mmHg

VISUALS

☑ None ☐ Photographs ☐ Video Tape ☐ CD / DVD
Visuals to ☐ MD ☐ Patient ☐ Chart

TRC1001 (4 08) IMMS # 121113

INTRAOPERATIVE NURSING RECORD

Page 1 of 3

PATIENT ID

UCC University Hospital 0207

[redacted]

WHITE - MEDICAL RECORD CANARY - DEPARTMENT PINK - OTHER

Date	OR #	Time in Room	Anesthesia Start	Surgery Start	Surgery End	Anesthesia End	Time Out of Room		
1/6/09	18	1102	1101	1146	1424	1445	1430	☑ OP ☐ IP ☐ AM	☑ Scheduled ☐ Add on Elective ☐ Emer / Trauma

Preop Diagnosis: pleomorphic parotid adenoma

Procedure: left superficial parotidectomy with Dissection and preservation of Facial Nerve

Postop Diagnosis: same as above ☐ Pending Pathology Report

ANESTHESIA ☑ Gen ☐ MAC ☐ Local ☐ Block Type ETT ☐ LMA ☑ Intubated ☐ Masked ASA 2 COMPLICATIONS ☑ None ☐ Yes

ANESTHESIA AGENTS See Anesthesia Record

ANESTHESIOLOGIST: Dr. F. Takla MD / B. Baucer (CRNA)

OTHERS: M. Duckworth

PLAN / IMPLEMENTATION

PROCEDURE 1 — SURGEON: Dr. D. Macert MD (A); 1st Assist: Dr K. Hartbar (Res); 2nd Assist: Ø

PROCEDURE 2 — SURGEON: ; 1st Assist: Ø; 2nd Assist:

CIRCULATING RN	IN/OUT	IN/OUT	IN/OUT	SCRUB RN/LVN/ORT	IN/OUT	IN/OUT	IN/OUT
H. Kim RN	start / 1350-1400	End		L. Sapitola RN	start / 1215		
L. Sapitola RN	1350 - 1400	End		R. Aparacio ORT	1210 —	End	

IRRIGATION / MEDICATION	AMOUNT	METHOD
0.25% Bupivacaine plain	(none) used	for local infection
NaCl	1L	for irrigation
Tisseel	1 ml	for Hemostasis
Bacitracin ointment	x1	topical apply to Ⓛ ear

SPECIMENS ☐ NO SPECIMEN COLLECTED	TYPE	DISPOSITION
① left superficial parotid	☒ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☒ PATH ☐ XRAY ☐ LAB
	☐ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☐ PATH ☐ XRAY ☐ LAB
	☐ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☐ PATH ☐ XRAY ☐ LAB
	☐ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☐ PATH ☐ XRAY ☐ LAB
	☐ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☐ PATH ☐ XRAY ☐ LAB
	☐ PERMANENT ☐ FS ☐ OTHER ☐ C/S AEROBIC / ANAEROBIC	☐ PATH ☐ XRAY ☐ LAB

OUTCOMES

EVALUATION

	Met	Not Met		Met	Not Met
I Patient relates an increase in psychological and physiologic comfort	☑	☐	III Patient free from S & S of injury, related to positioning, extraneous objects and equipment	☑	☐
II Patient's surgery performed using aseptic practices and in a manner to prevent cross-contamination	☑	☐			

Discharged Via ☐ Surgi Lift ☐ Patient Bed ☐ Crib ☑ Gurney Report given to M Kim Hancock RN

Discharged To ☑ PACU ☐ OPS/ASU ☐ ICU/CCU/CSU ☐ Nursing Unit ☐ Other

Notes: The patient transported to PACU with 8L/min via mask

RN Signature: M Kim RN

TRC1001 (4-08) IMMS # 121113

INTRAOPERATIVE NURSING RECORD

Page 2 of 3

PATIENT I.D.: USC University Hospital 0207 [redacted]

WHITE - MEDICAL RECORD CANARY - DEPARTMENT PINK - OTHER

NOTES

DATE OF OPERATION: 01/06/2009

SURGEON: Dennis Maceri, M.D.

ASSISTANT: _____

PREOPERATIVE DIAGNOSIS:

Left pleomorphic adenoma.

POSTOPERATIVE DIAGNOSIS:

Left pleomorphic adenoma.

PROCEDURE:

Left superficial parotidectomy with removal of pleomorphic adenoma with dissection and preservation of the facial nerve.

FINDINGS:

1. Well-encapsulated mass in the anterior portion of the lateral lobe.
2. Facial nerve completely dissected, clean without any abnormality, stimulated well at the end of the case.

PROCEDURE:

After induction of general endotracheal anesthesia, the table was turned 180 degrees, and the left side of the face and neck were prepped and draped in the usual fashion. We made a modification of the Blair incision where we went into the pre-auricular sulcus but then went back up over the mastoid tip in a facelift-type of incision to prevent dropping the limb down. The incision was then made through skin and subcutaneous tissues, and following that, we went ahead and elevated flaps in the fat plane between the skin in the parotid fascia. Once the skin flaps were elevated, we began dissecting in the pre-auricular area. First we dissected down the external auditory canal cartilage into the region of the tragal pointer. Once that was dissected, we then turned posteriorly and went back to the mastoid tip, elevating the fascia and soft tissues above the mastoid tip until we identified the anterior border of the sternocleidomastoid muscle. Once that was accomplished, we dissected inferiorly, cutting the great auricular nerve until we reached the area into the region inferior to the tail of the parotid. We then turned back towards the area of the tragal pointer and dissected in the area that was just beneath the tympanomastoid suture. In this region, we identified the main trunk of the facial nerve.

It was stimulated with 0.5 milliamps.

After the main trunk was dissected, we went ahead and traced it out and sequentially identified, dissected, and preserved all branches of the facial nerve, starting with the cervical, marginal mandibular, and zygomaticotemporal. There was a small branch coming out just past the pes. It went right into the region of the tumor. It had to be sacrificed, but it most likely represented an arcade. As we worked from inferior to superior, we had the tumor constantly in our field of vision and into palpation, and as we elevated the superficial lobe of the parotid, each branch was dissected out. As we got around anteriorly, the tumor was actually a little larger and a little more anteriorly based than I had originally appreciated. It was actually laying on a part of masseter muscle fascia. This was completely cleaned, and we finally, after dissecting out the zygomatic temporal branch, were able to remove the soft tissues with Harmonic Scalpel. All of the dissection was carried out with Harmonic Scalpel and bipolar cautery. Ligature clips were used where necessary for hemostasis. Once we separated the entire lateral lobe, hemostasis was obtained with bipolar cautery and ligature clips. The wound was irrigated with saline. The nerve was stimulated 1 more time at 0.5 milliamps with all branches responding appropriately, and we then went ahead and sprayed Tisseel spray into the into the wound. We then took a piece of thick AlloDerm, 4 x 7 cm, and placed it on the portion of the facial nerve and _____ and rolled up a portion of it to fit into the sulcus was created in the anterior part of the sternocleidomastoid muscle. With that complete, we began the closure. The pre-auricular area was closed by first putting a deep layer of interrupted 5-0 Vicryl followed by interrupted 6-0 nylon in the pretragal area and in the region of the lobule. Then 5-O nylon interrupted was used in the posterior part. A large mastoid pressure dressing was applied . Sponge and needle counts were correct . Blood loss was approximately 150 mL. He received approximately 1500 mL of crystalloid solution. The patient was then awakened, extubated, and transferred to the recovery room with stable vital signs.

Dennis Maceri, M.D.

dATE _____ TIME _____

Dictated by: Dennis Maceri, M.D.
pre
D: 01/06/2009 2:28 P

USC UNIVERSITY HOSPITAL
1500 San Pablo Street
Los Angeles, CA 90033

[redacted]
MR# [redacted]
ACCOUNT #: [redacted]
386199 Dennis Maceri, M.D. 01/06/2009

OPERATIVE REPORT

T: 01/06/2009 6:00 P
J: [redacted]

CC: Dennis Maceri, M.D.

USC UNIVERSITY HOSPITAL
1500 San Pablo Street
Los Angeles, CA 90033

[redacted]
MR# [redacted]
ACCOUNT #: [redacted]
386199 Dennis Maceri, M.D. 01/06/2009

OPERATIVE REPORT

Authenticated by DENNIS MACERI, M.D. On 1/12/09 8:33:22 AM

Exhibit 34

USC UNIVERSITY HOSPITAL
GENERAL IOM POLICIES

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:	**9-107**		
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:	01/01/2008		
		REVISED DATE:			
		AUTHORIZED APPROVAL:			
PERSONNEL COVERED:	NEUROPHYSIOLOGY STAFF	PAGE:	1	OF	8

PURPOSE

To ensure the standard of practice for intraoperative monitoring for all procedures is followed.

DEFINITION

Intraoperative Monitoring (IOM) is a set of tests that measure central and peripheral nervous system function during a surgical procedure. For these tests needle electrodes are placed in the scalp, neck, and extremities for recording and stimulation. During these tests waveforms are digitally acquired and recorded. These waveforms are then monitored to assess neurological function.

GENERAL POLICY- IOM USE

1. To perform these tests, a physician's order is required.
2. Only qualified technical personnel may perform the tests.
3. All technical personnel must be under supervision by the IOM supervisor and an IOM physician.

GENERAL IOM PROCEDURE FOR ALL TECHNICAL PERSONNEL

1. Arrive to the case at least 15 minutes prior to the scheduled start time and place the computer system to allow for direct connection to the network for remote monitoring. When necessary, patient history and physical can be obtained in pre-op.
2. Before each case, there should be a good understanding of the neural pathway at risk and the appropriate monitoring modalities to use to monitor that case. However, one should always *ASK THE SURGEON* which structures are at risk and if needed, modify one of the existing protocols to include these structures. When possible always include a level above as a control, the level of interest and a level below the neural structure at risk during this particular operation. Whenever there is a doubt about what areas to monitor have the IOM supervisor or physician involved.
3. One should confer with anesthesia as to the suggested protocol needed for optimal monitoring. If there is a question as to what to monitor please contact the IOM supervisor or physician.
4. Only disposable needle electrodes should be used. Placement of all needle electrodes must be done after patient induction, either during or immediately following patient intubation.
5. One should log relevant events and communications with the surgeon including the surgeons response when applicable. Also, include relevant physiological variables (e.g. blood pressure, temperature), anesthetic agents and levels during the different stages of the procedure or when changes in the waveforms are seen.

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:	9-107		
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:	01/01/2008		
		REVISED DATE:			
		PAGE	2	OF	8

6. Establishing baselines;
   A. Baseline values should be established after induction has been complete.
   B. Baseline values should be re-established or changed as needed, for example, after exposure or when depth of anesthesia changes.
   C. Any limitations or deficits found in the baseline data should be discussed with the IOM supervisor or physician and then the surgeons notified of any monitoring limitations.

7. When monitoring SSEPs maintain inhaled agents at 0.5 MAC up to 1.0 MAC .
   For MEPs, a minimum of 3-4 twitches are needed to obtain a response. Maintain inhaled agents at 0.5 MAC or less (see table).

8. If monitoring EMG one should have at least 4 twitches. Document either “no muscle relaxant given since induction” or number of twitches.

9. Always contact the IOM supervisor or physician when a significant event occurs.

10. Remove all electrodes before the patient awakes. Dispose all needle electrodes in the appropriate sharp waste containers.

11. Place billing and reports into the neurophysiology box within 3 hours after the case.

12. A report should be submitted 72 hours after the case.

EQUIPMENT USE AND MAINTENANCE

All medical equipment used in IOM is maintained in an appropriate and safe manner in compliance with all Keck USC Hospital policies as well as with all manufacturer recommendations. All equipment must receive yearly Electrical Safety Inspections which are done by the Keck USC Biomedical department

Specific Equipment Responsibilities for the Cadwell Elite IOM system and Medtronic NIM system :

1. IOM technologist will perform routine cleaning, minor repair, part replacement, troubleshooting, software upgrades, and data archiving.

2. Vendor (Cadwell and Medtronic) performs annual PM as per the service contract.

3. Biomedical personnel will do an annual electrical safety inspection, certification of electrical safety, and maintain all records of such inspections

UNIVERSITY HOSPITAL
OPERATING POLICIES

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:	**9-107**		
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:	01/01/2008		
		REVISED DATE:			
		PAGE	3	OF	8

SPECIFIC IOM POLICIES

A. Staffing policies

1. All new IOM technologists must pass through an initial orientation and training period before being granted IOM privileges. This period includes a general orientation for all new Keck USC employees, fire safety training, IT and Kronos access, and general OR orientation and supervision by the IOM Supervisor and Medical Director. The duration of the training period will be determined by the IOM Supervisor and Medical Director, and will vary depending on the experience and skill level of the technologist.

2. All privileges and performance is reviewed annually by the IOM Supervisor and Medical Director.

3. One IOM technologist will be on-call at all times unless excused by the IOM Supervisor, in which case a back up on-call technologist will be arranged.

4. The use of a per-diem IOM technologist will be determined by the IOM Supervisor and Medical Director, however, per-diem employees are not to take on-call responsibilities.

UNIVERSITY HOSPITAL
OPERATING POLICIES

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:		9-107	
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:		01/01/2008	
		REVISED DATE:			
		PAGE	4	OF	8

B. Interpretation policy (include information on who interprets, when they interpret, and on report generation)

EMG Interpretation- For all lumbar cases, EMG monitoring should be provided. Strict clinical interpretation of significant activity should be referred to the IOM physician. However IOM personnel should communicate to the surgeon all activity that is considered significant.

Significant EMG activity includes the following (**See TABLE 4**);

A. EMG bursts that are closely correlated with manipulation of neural structures.
B. Onset of trains of firing at the time of manipulation of neural structures.
C. Increase in intensity of EMG trains at the time of manipulation.
D. Bursts of activity at the time of pedicle hole drilling.
E. Myokymic potentials which usually signify injury to the associated nerve.

EMG activity that is not likely to be significant;

A. Continuous low-level firing uncorrelated to surgical activity.
B. EMG activity correlated to irrigation
C. Abnormal spontaneous activity such as fibrillations and positive waves.

TcMEP Interpretation and Troubleshooting- Strict clinical interpretation of TcMEPs should be referred to the IOM physician. However IOM personnel should communicate to the surgeon all findings that are considered significant.

A. Anesthetics- All TcMEP procedures should ideally be done using a TIVA protocol. However, in practice, moderate use of inhalational agent can be tolerated (up to 0.5 MAC). The use of inhalational agent has a strong suppression of all TcMEP responses, and can introduce significant variability of all responses throughout the surgical procedure.
   1) Inhalational agents- a strong dose dependent suppression.
   2) Neuromuscular agents- generally used for intubation, remind the anesthesia staff that, ideally, only a small bolus should be used with a short acting time course. The important factor is that baseline responses cannot be obtained until the initial bolus has been metabolized. Occasionally, muscle relaxant will be necessary during the procedure, always document this.

B. Stimulation troubleshooting
   1) Always check both stimulation polarities for all recording montages.
   2) Check and adjust the position of the electrodes if necessary.
   3) Increase the stimulus by adjusting both the amplitude and varying the number of pulses and pulse interval.

C. Recording troubleshooting
   1) Has the anesthetic been altered during the procedure? There is a tendency to accumulate with hypothermia, ischemia, elderly, high infusion rates, and long surgeries. Check muscle relaxation using both anesthesia monitoring and TOF monitoring at the hand.
   2) Are there intact control responses, if appropriate?
   3) Is there a stimulus train artifact present in the recordings?

D. Loss of signal troubleshooting
   1) What is the quality of the signal earlier, amplitude, level of stimulus?
   2) What confounding factors are present, noise, anesthesia?
   3) What is the rate of change, gradual or suddenly.

4) Are there correlations to surgical manipulations?
5) Does the change correlate with SSEP changes?

ALARM CRITERIA

These alarm criteria are dependent upon a number of factors. These include 1) response variability, 2) anesthetic usage, 3) the presence or absence of pre-existing neurologic injury, 4) the rate of response change, and 5) surgical events at the time of change. These criteria must be taken into account when intervention is a consideration.

SSEP MONITORING

	AMPLITUDE CHANGE	LATENCY CHANGE	RESPONSE
LEVEL 1	Decreased up to 30%	increased up to 5%	Minor fluctuation No warning to the surgeon No intervention needed
LEVEL 2	Decreased 30-50%	increased 5- 10%	Warning to surgeon of mild adverse changes may be necessary, consult with the IOM physician if needed Intervention optional
LEVEL 3	Decreased 50-75%	increased 10-20%	Warning to the surgeon of moderate degree of adverse change Intervention desirable
LEVEL 4	Decreased greater than 75%	increased greater than 20%	Warning to the surgeon of severe adverse change Intervention necessary

TCMEP MONITORING

	AMPLITUDE CHANGE	THRESHOLD CHANGE	RESPONSE
LEVEL 1	Decreased up to 30-50%		Minor fluctuation No warning to the surgeon No intervention needed
LEVEL 2	Decreased 50-85%		Warning to surgeon of mild adverse changes may be necessary, consult with the IOM physician if needed Intervention optional
LEVEL 3	Decreased greater than 85%	Greater than 100mV	Warning to the surgeon of severe adverse change Intervention necessary

UNIVERSITY HOSPITAL
OPERATING POLICIES

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:	**9-107**		
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:	01/01/2008		
		REVISED DATE:			
		PAGE	6	OF	8

C. Infection control

1. Sterile areas should always be respected and non-sterile personnel should minimize their activity around those areas.

2. Proper surgical attire should be worn, including scrubs, hat, mask, appropriate eye care and shoe covers.

3. Neuromonitors and ancillary equipment such as cables and the electrode jackbox should be cleaned with a high-level disinfectant after each case

4. All equipment used in the OR should be properly isolated electrically and protected in from contamination or exposure to body fluids.

5. Gloves should be routinely worn in high-risk areas such as the ICU and OR arenas, particularly when touching patients with wounds, bloody areas, and other secretions or excretions present. Gloves should also be worn when handling any neuromonitoring item soiled by bodily fluids (e. g., electrodes, patient cables). Disposable, subdermal, needle electrodes when used should be disposed inthe appropriate manner for sharp objects.

6. Reusable, needle electrodes should be washed, soaked in Clorox (1:10 solution) for 10-15 minute, packaged, and taken to sterile processing for steam sterilization.

7. Intraoperative neuromonitoring personnel should adhere to standard precautions which guard against the risk of accidental exposure to blood and body fluids, and be informed about contraction of and inoculation against Hepatitis B.

D. Electrical safety

Evaluation of leakage current and inspection of the overall electrical integrity of the equipment should be completed 2-3 times a year (or as per the biomedical engineering protocol at your institution), or at any time faulty or malfunctioning equipment is suspected. All electrodes used in the O.R. must comply with Subclause 56.3 (c) of the International Electrotechnical Commission (IEC) standard 6 (Federal Register 1997). The 1.5 mm or 1.0 mm covered connector electrode (DIN safety connectors or female electrode) meets this standard.

E. Quality improvement

The Hospital Leadership has adopted the methodology P.D.C.A. model for performance improvement. P.D.C.A. is the acronym for **P**lan **D**o **C**heck **A**ct and DMAIC (Define, Measure, Analyze, Improve and Control) lean processes. Communication is open and dynamic on a daily basis. We have weekly lab meetings to discuss any notable performance issues on our IOM service and any improvement suggestions. Biweekly educational seminars provide quality improvement on the topics discussed. Annual performance reviews of all personnel provide individualized areas to improve.

F. Continuing education for staff

We have established a biweekly educational seminar on various IOM topics. These topics include neurosurgical procedures including instrumentation, techniques and anatomy, clinical neurophysiology topics sourced from various relevant journals, recently published clinical IOM studies, and other various technical IOM topics. These educational seminars will be 0.5 hours per seminar, and so one hour total per month, and will be documented on a log with time, date and topic of discussion. These hours will be used for continuing education hours for CNIM personnel.

Occasionally our personnel will attend regional and national meetings which include Cadwell IOM workshops, WSET, ASET, ASNM, ACNS meetings and others. Generally these meetings provide 10-15 continuing education units which can be applied toward CNIM re-certification.

Other forms of continuing education include direct OR training by the technical and/or the medical director on various new or developing IOM monitoring techniques and/or new surgical approaches. Some examples include, APS (aperiodic stimulation) monitoring of the spinal accessory nerve during radical neck dissections, facial nerve anastomoses, direct brainstem recording of the cochlear nucleus, etc.

G. Training for new equipment

This is accomplished by didactic in-office training by equipment representatives or by using manuals. We use hands-on training in the OR by equipment representatives or by the technical director.

UNIVERSITY HOSPITAL
OPERATING POLICIES

DEPARTMENT:	NEUROPHYSIOLOGY	POLICY #:	**9-107**		
SUBJECT:	**INTRA-OP MONITORING – GENERAL POLICIES**	EFFECTIVE DATE:	01/01/2008		
		REVISED DATE:			
		PAGE	8	OF	8

H. Training for new types of surgeries/types of monitoring

Direct training in the OR is performed by the technical and/or the medical director on various new or developing IOM monitoring techniques and/or new surgical approaches. Some examples include, APS (aperiodic stimulation) monitoring of the spinal accessory nerve during radical neck dissections, facial nerve anastomoses, direct brainstem recording of the cochlear nucleus, etc.

I. Emergency coverage

We have three full time technologists who rotate call weeks to cover emergency add-on cases throughout the week and on weekends. If more personnel are required we use per-diem technologists and third-party monitoring companies which we are contracted with.

J. Policy on record retention

We store our physical records in secure file cabinets stored onsite for at least five years and then they are moved to an outside storage facility by Keck Hospital. Our digital records are downloaded from data acquisition systems daily, and they are backed up weekly into a dedicated network drive that is on our secure Keck Hospital intranet server.

Effective/Revision Dates for Policy # <insert policy number>		
Effective:	06/28/05	PIC
Revised:	01/01/08 (reviewed)	
Keywords:	IOM, ABR, SSEP, MEP, TcMEP, EMG	

Exhibit 35

USC University Hospital
Intraoperative Neurophysiology
1500 San Pablo St. Suite 2500. Los Angeles, CA 90033 (323) 442-8852

EVENT LOG

Time	Text
07:47:58	pt in the room
08:15:28	bite block placed
08:19:31	dr Hsiieh asked about baseline " we have uppers and lowers ssep
08:29:19	pt still under muscle relaxed
08:53:21	Begin Incision
08:57:41	bp 143/90, hr 101
09:09:44	mep baseline uppers ok lowers mep very small
09:14:32	exposure
09:38:38	Corpectomy (continued)
09:42:45	dr Hsieh requested mep " we have mep"
09:50:37	drilling
09:50:42	bis is on
10:09:01	drilling
10:10:46	cheking mep by surgeon requested " mep done"
11:06:42	still drilling
11:35:23	left lower mep very very small
11:40:48	Stored Impedance
11:41:04	bone graft
11:48:14	Stored Impedance
11:55:03	call Chris reported mep changes in the left hand and left foot
11:55:37	Chris reported to dr Hsieh
11:57:32	placing screw
12:23:35	Closing
12:26:06	Stored Impedance
12:26:20	surgeon performing wake test
12:47:36	flip pt
12:57:50	posterior repositioning; gas @ 1.2 %
13:24:44	exposure
13:50:56	Chris just left the room
14:03:15	drilling
14:06:28	laminectomy
14:33:25	bis is off
14:38:24	Screws in
14:39:47	Begin Placing Rods
14:49:45	Draining, anest increasing gas
14:57:23	Closing

USC University Hospital
Intraoperative Neurophysiology
1500 San Pablo St. Suite 2500. Los Angeles, CA 90033 (323) 442-8852

DATE OF STUDY: 1/27/2009
STUDY #: UH09-46
REFERRING PHYSICIAN: Patrick Hsieh, M.D.

PATIENT HISTORY: This patient is a 41 year old female with cervical spondylosis and stenosis.

MONITORING MODALITIES: upper limb somatosensory evoked potentials, (95925) lower limb somatosensory evoked potentials, (95926) upper limb transcranial motor evoked potentials, (95928) lower limb transcranial motor evoked potentials, (95929) free run EMG (95861)

RESULTS: During C4- C5 vertebrectomy, C3 - C6 anterior spinal fusion, C3-C6 laminectomy and posterior spinal fusion the aforementioned modalities were continuously monitored.

The surgeon was informed at baseline that the patient's potentials were difficult to monitor the lower extremity MEP's. During the procedure, amplitude decreases were seen on the left upper and lower extremity MEP.
Free running EMG recording was provided. The OR physicians were promptly made aware of any spontaneous discharges suggesting irritation of any of the relevant nerves.

9 hours were spent monitoring. The surgeons were kept informed of the monitoring status and any significant changes.

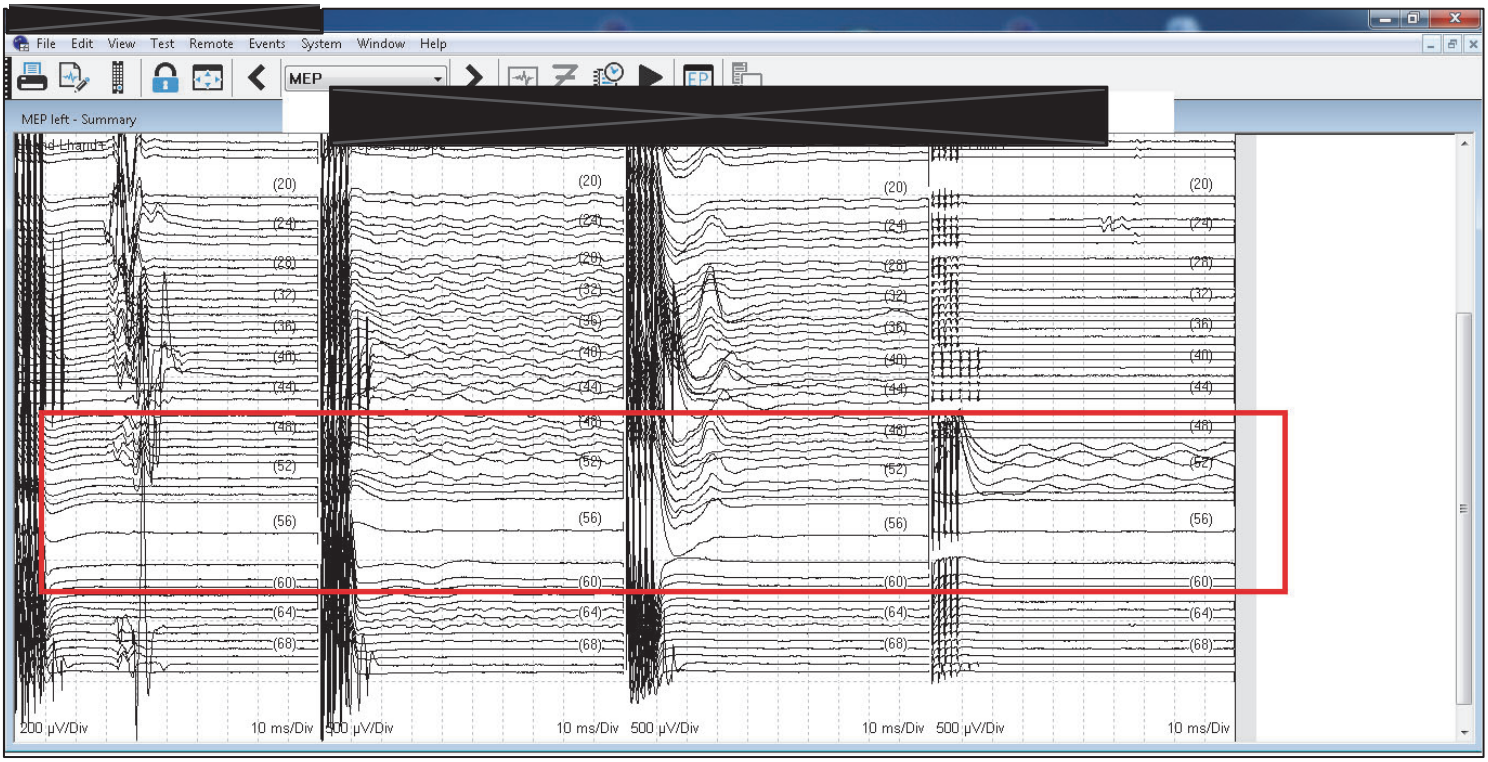
IMPRESSION: During the procedure, the potentials showed moderate changes that were persistent.

COMMENTS: The changes seen in the upper and lower extremity motor evoked potentials during the procedure suggest that an interruption of this pathway occurred. Clinical correlation is advised

ANDRES A. GONZALEZ, M.D.
Electronic signature 1/29/2009 2:57:54 PM

ACCOUNT#
MR#

EVIDENCE OF INTRAOPERATIVE PATIENT HARM:



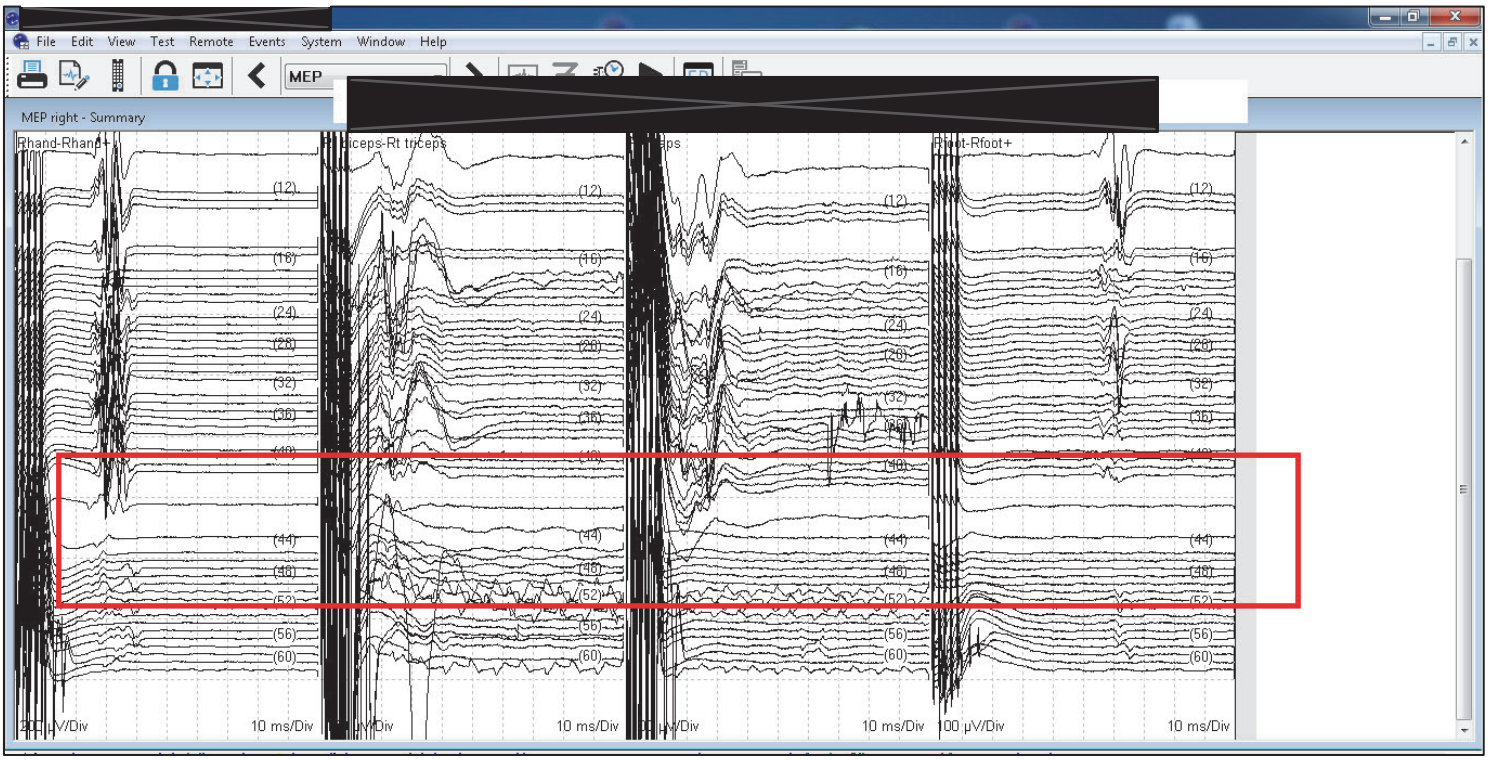
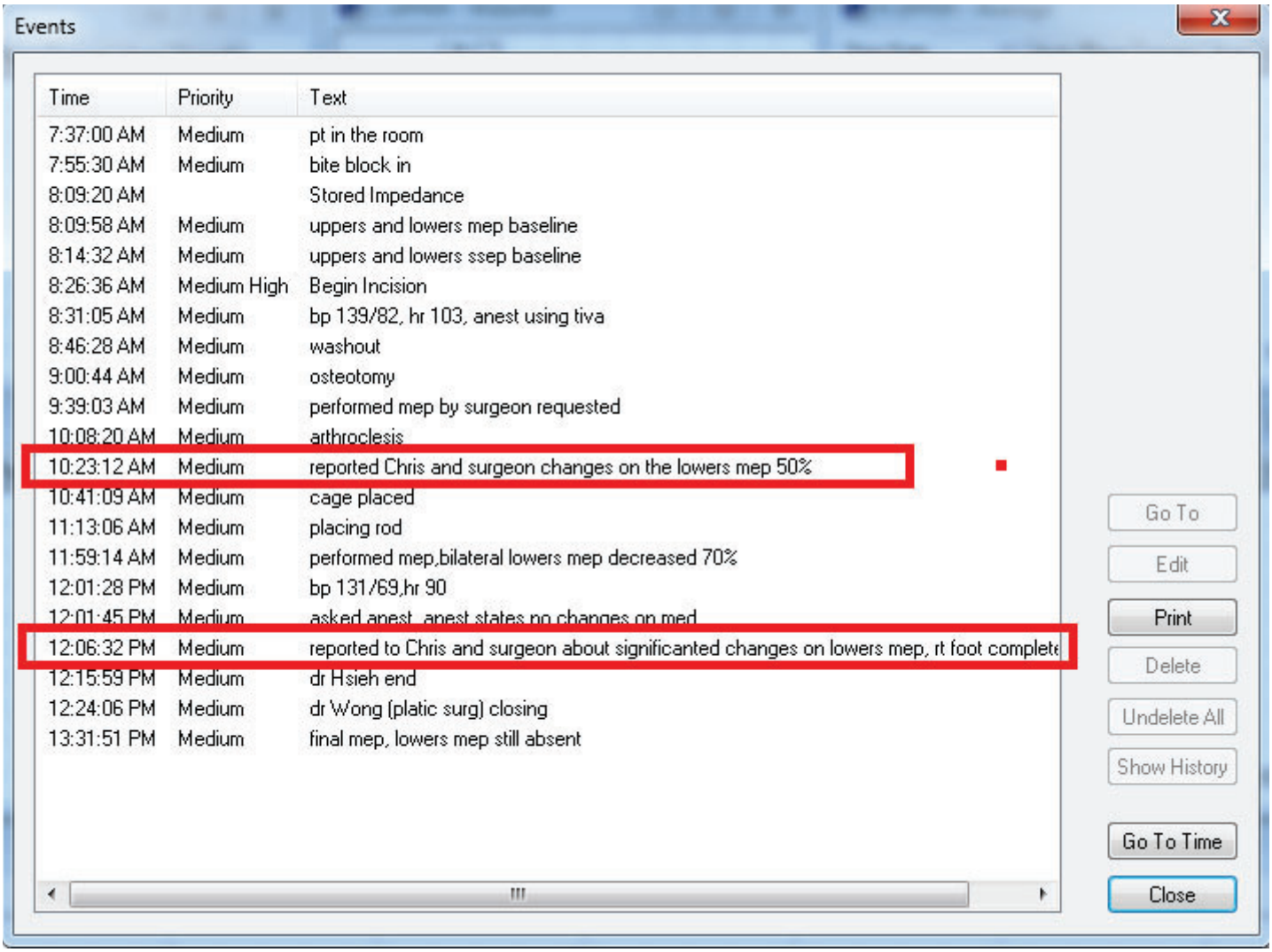
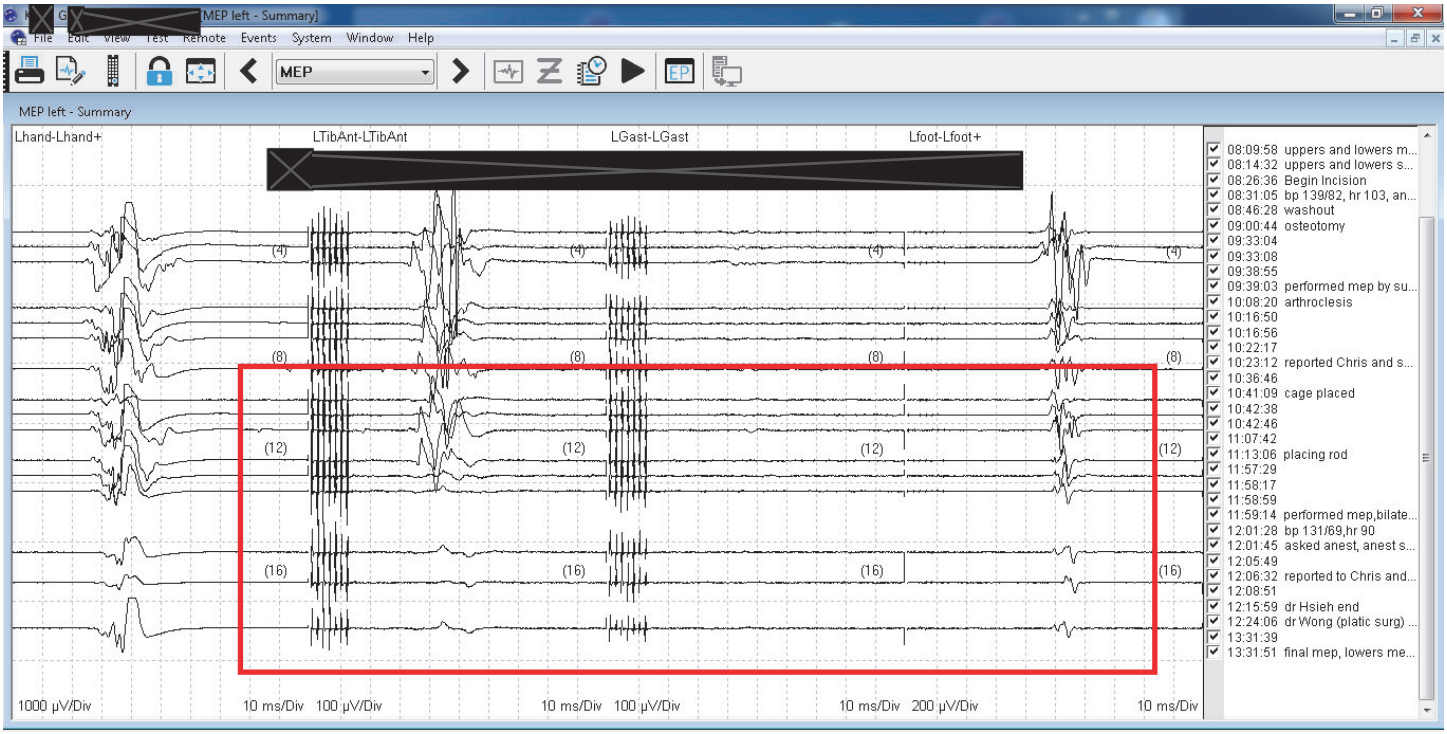
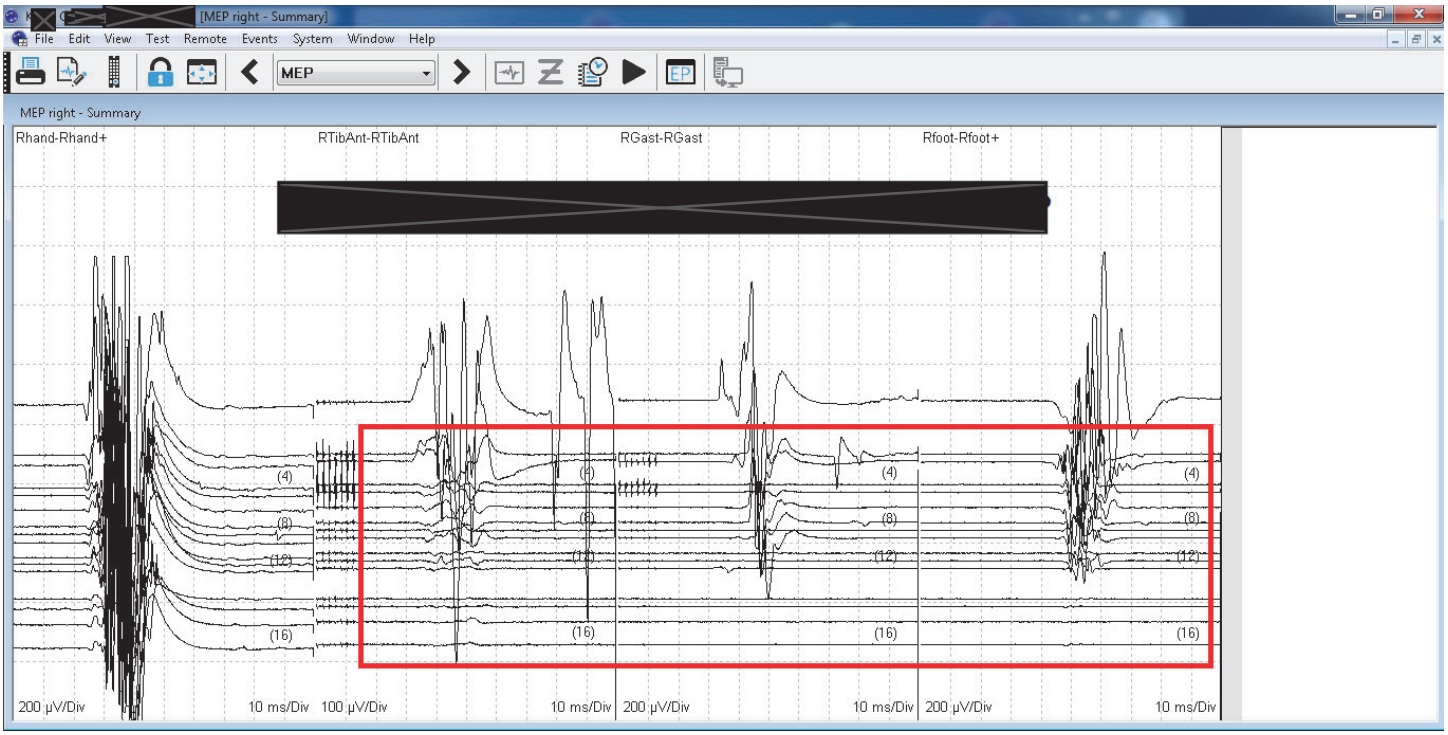


Exhibit 36


Events
Time
Priority
Text
7:37:00 AM Medium pt in the room
7:55:30 AM Medium bite block in
8:09:20 AM Stored Impedance
8:09:58 AM Medium uppers and lowers mep baseline
8:14:32 AM Medium uppers and lowers ssep baseline
8:26:36 AM Medium High Begin Incision
8:31:05 AM Medium bp 139/82, hr 103, anest using tiva
8:46:28 AM Medium washout
9:00:44 AM Medium osteotomy
9:39:03 AM Medium performed mep by surgeon requested
10:08:20 AM Medium arthroclesis
10:23:12 AM Medium reported Chris and surgeon changes on the lowers mep 50%
10:41:09 AM Medium cage placed
11:13:06 AM Medium placing rod
11:59:14 AM Medium performed mep,bilateral lowers mep decreased 70%
12:01:28 PM Medium bp 131/69,hr 90
12:01:45 PM Medium asked anest, anest states no changes on med
12:06:32 PM Medium reported to Chris and surgeon about significanted changes on lowers mep, rt foot complete
12:15:59 PM Medium dr Hsieh end
12:24:06 PM Medium dr Wong (platic surg) closing
13:31:51 PM Medium final mep, lowers mep still absent
Go To
Edit
Print
Delete
Undelete All
Show History
Go To Time
Close


[MEP left - Summary]
File Edit View Test Remote Events System Window Help
MEP
MEP left - Summary
Lhand-Lhand+
LTibAnt-LTibAnt
LGast-LGast
Lfoot-Lfoot+
(4)
(8)
(12)
(16)
1000 µV/Div
10 ms/Div 100 µV/Div
10 ms/Div 100 µV/Div
10 ms/Div 200 µV/Div
10 ms/Div
08:09:58 uppers and lowers m...
08:14:32 uppers and lowers s...
08:26:36 Begin Incision
08:31:05 bp 139/82, hr 103, an...
08:46:28 washout
09:00:44 osteotomy
09:33:04
09:33:08
09:38:55
09:39:03 performed mep by su...
10:08:20 arthroclesis
10:16:50
10:16:56
10:22:17
10:23:12 reported Chris and s...
10:36:46
10:41:09 cage placed
10:42:38
10:42:46
11:07:42
11:13:06 placing rod
11:57:29
11:58:17
11:58:59
11:59:14 performed mep,bilate...
12:01:28 bp 131/69,hr 90
12:01:45 asked anest, anest s...
12:05:49
12:06:32 reported to Chris and...
12:08:51
12:15:59 dr Hsieh end
12:24:06 dr Wong (platic surg) ...
13:31:39
13:31:51 final mep, lowers me...


[MEP right - Summary]
File Edit View Test Remote Events System Window Help
MEP
MEP right - Summary
Rhand-Rhand+
RTibAnt-RTibAnt
RGast-RGast
Rfoot-Rfoot+
(4)
(8)
(12)
(16)
200 µV/Div
10 ms/Div
100 µV/Div
10 ms/Div
200 µV/Div
10 ms/Div
200 µV/Div
10 ms/Div

USC University Hospital
Intraoperative Neurophysiology
1500 San Pablo St. Suite 2500. Los Angeles, CA 90033 (323) 442-8852

DATE OF STUDY: 4/20/2010

STUDY #: UH 10-197

REFERRING PHYSICIAN: Patrick Hsieh MD/ Wong Alex MD.

MONITORING MODALITIES: upper limb somatosensory evoked potentials, (95925) lower limb somatosensory evoked potentials, (95926) upper limb transcranial motor evoked potentials, (95928) lower limb transcranial motor evoked potentials, (95929) free run EMG (95861)

RESULTS: During L3 pedicle screw osteotomy , T11- L2 Smith Peterson Osteotomy, T10 pelvis fusion and paraspinal muscle flap closure the aforementioned modalities were continuously monitored.

The surgeon was informed at baseline that the patient's potentials were adequate for monitoring bilaterally.During the procedure, these potentials changes in the lower extremities MEPs were seen and reported to the surgeon. Free running EMG recording was provided. The OR physicians were promptly made aware of any spontaneous discharges suggesting irritation of any of the relevant nerves.

7 hours were spent monitoring. The surgeons were kept informed of the monitoring status and any significant changes.

IMPRESSION: During the procedure, the potentials showed severe changesin the bilateral lowers motor evoked potentials that were persistent.
COMMENTS: The changes seen in the bilateral lower extremity motor evoked potentials during the procedure suggest that an interruption to this pathway occurred. Clinical correlation is adviced.

ANDRES A GONZALEZ, M.D.
Electronic signature 5/7/2010 10:47:42 AM

MR #
ACCOUNT #

Exhibit 37

Intraoperative Note
* Final Report *

[redacted]

* Final Report *

Procedure Date: 8/15/2017
Referring Physician: Mehta, M.D.
OR#: 20
Study #: LAC 17-341
Technician: NN/MV
Patient History: 64-year-old man with over a year of difficulty with using hands, paresthesias in hands, difficulty walking due to imbalance. Has been non-ambulatory for 6 months
Surgical Procedure: C5-C7 ACDF

MONITORING MODALITIES:
SSEPs (somatosensory evoked potentials), TcMEPs (transcranial motor evoked potentials) and free run EMG.

RESULTS:
During the procedure the aforementioned modalities were continuously monitored.

The surgeon was informed at baseline that the patient's potentials amplitudes were adequate for monitoring bilaterally. During discectomy the bilateral hands and feet motor evoked potentials and global sensory evoked potentials were lost. A minimal recovery of responses was seen during closing. 7.25 hours were spent monitoring, and the surgeons were kept informed of the monitoring status and any significant changes.

IMPRESSION:
Somatosensory evoked potentials and Transcranial Motor evoked potentials were continuously monitored during surgery. Bilateral hand and feet motor evoked potentials and global sensory evoked potentials were lost during discetomy with minimal recovery at closing.

Please see comment.

COMMENT: The changes seen in the (upper and lower extremity somatosensory and motor evoked potentials during discectomy suggest that an interruption of this pathway occurred. Clinical correlation is strongly advised.

Further monitoring data is available by contacting the Intraoperative Neurophysiological Monitoring department

Signature Line
Electronically Signed on 08/15/17 17:09 PDT

Vesely, Michael

Operative Report
* Final Report *

[redacted]

general anesthesia, we notified Anesthesia to maintain mean arterial pressures greater than 85 throughout the case. He was then left in the prone position. His neck was slightly extended. The anterior cervical spine was then shaved, prepped, draped in the usual sterile fashion. Fluoroscopy was brought in to confirm the approximate C5-6 level. This area was then shaved, prepped, draped in the usual sterile fashion. We then performed a time-out to confirm correct patient, procedure, site, and side. A dilute solution of lidocaine with epinephrine was injected into the subcutaneous tissue in a horizontal crease at the approximate levels. We then opened the skin with a 10 blade and used Bovie cautery to open down to the platysma. We performed a subplatysmal dissection. We opened the platysma sharply and performed a subplatysmal dissection. We found the medial border of the sternocleidomastoid and dissected down until we were over the prevertebral fascia. Handheld retractors were then placed, and the longus colli were divided in the midline using Bovie cautery and elevated laterally off the spine. Trimline cervical retractors were then placed, and a spinal needle was placed at the approximate C5-6 level. Again, fluoroscopy was used to confirm that we were at the appropriate level. We then opened this disc space using an 11 blade and performed discectomy using a combination of curets and Kerrison. Prior to the discectomy, we noticed a drop in the bilateral lower extremity motors and sensory in bilateral upper extremity, and at this point, mean arterial pressure was driven above 95, and the head was removed from slight extension. We completed the discectomy and found adequate decompression of the thecal sac after removal of the posterior longitudinal ligament. At this time, motor evoked potentials had some mild recovery, but they were still significantly decreased from baseline. At this point, the decision was made to urgently perform a posterior decompression and fusion, given the multiple levels of cervical stenosis. We considered performing an anterior cervical diskectomy and fusion at the level below and also considered taking him to MRI to determine which levels were most stenotic. However, given the acute change in findings on neuromonitoring, I felt that his best chance of making a neurologic recovery was a rapid decompression of his central canal. We attempted to reach his family, but were unable to do so, and so emergency 2 physician consent was obtained to proceed with the posterior stage. Of note, I had previously discussed this with the patient, but we had not obtained formal documented consent for this. At this time, an anterior cervical diskectomy plate was then placed, and 4 screws were applied. The wound was copiously irrigated, and a 7 flat JP was placed in the wound and tunneled out. We closed the platysmal layer with 2-0 Vicryl pops, the deep dermal layer with 3-0 Vicryl, and the skin with a subcutaneous Biosyn. The dressing was applied. He was then placed in Mayfield head clamp and was turned prone onto a regular OR table with gel rolls. The posterior cervical region was then shaved, prepped, draped in the usual sterile fashion. Again, a time-out was performed indicating that this was an urgent/emergent procedure performed under a 2 physician emergency consent, due to the lack of available family members and due to the impending neurologic injury and need for decompression to prevent neurologic dysfunction and restore any remaining function. The skin was opened in the midline with a 10 blade, and bipolar cautery was used to dissect subperiosteally to expose the lateral masses of the C3 through 6 level, making sure not to violate the C2-3 joint or the C6-7 joint. There was some exposure of the C6-7 joint on the left side. Fluoroscopy was brought in to confirm the appropriate levels. At this point, lateral mass screw starting points were drilled from C3-6. We then performed a wide laminectomy at these levels and obtained a good decompression of the thecal sac. We extended the laminectomy inferiorly to the superior part of the C7 lamina. After we had achieved adequate decompression, we placed lateral mass screws from C3-C6 and connected these with a rod and set screw caps. A crosslink was then placed. The wound was copiously irrigated. The facet joints and lateral masses were then decorticated. Autograft was then harvested from the lamina and placed over the area of the exposed bone. Meticulous hemostasis was then achieved. We then placed a 10 flat JP above the thecal sac and closed the fascia with 0 Vicryl pops, the deep dermal with 2-0 Vicryl pops, and the drain was secured in place using a 3-0 nylon. Following the posterior decompression, there was recovery of the motor and sensory evoked potentials. All sponge and needle counts were correct at the end of the procedure. The patient was returned to the supine position and left intubated, given the concern for high cervical cord level and taken back to the intensive care unit.

Dictated By: Vivek A. Mehta, MD

Vivek A. Mehta, MD

VAM/MODL
JOB #: 967387/753730931

Inpatient Progress Note - Generic

[redacted]

Inpatient Progress Note (Verified)

DATE OF SERVICE:

ATTENDING PHYSICIAN: Vivek A. Mehta, MD

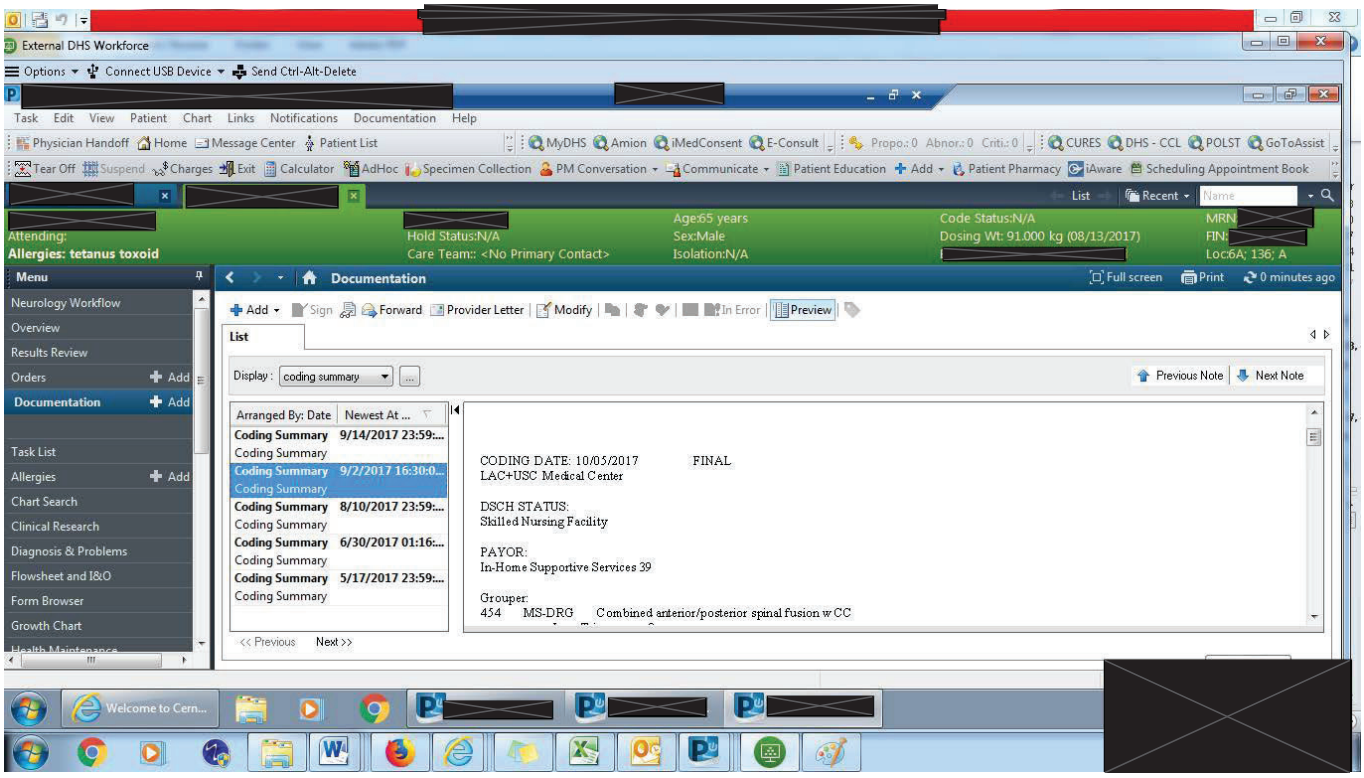
RESIDENT PHYSICIAN: Vivek A. Mehta, MD

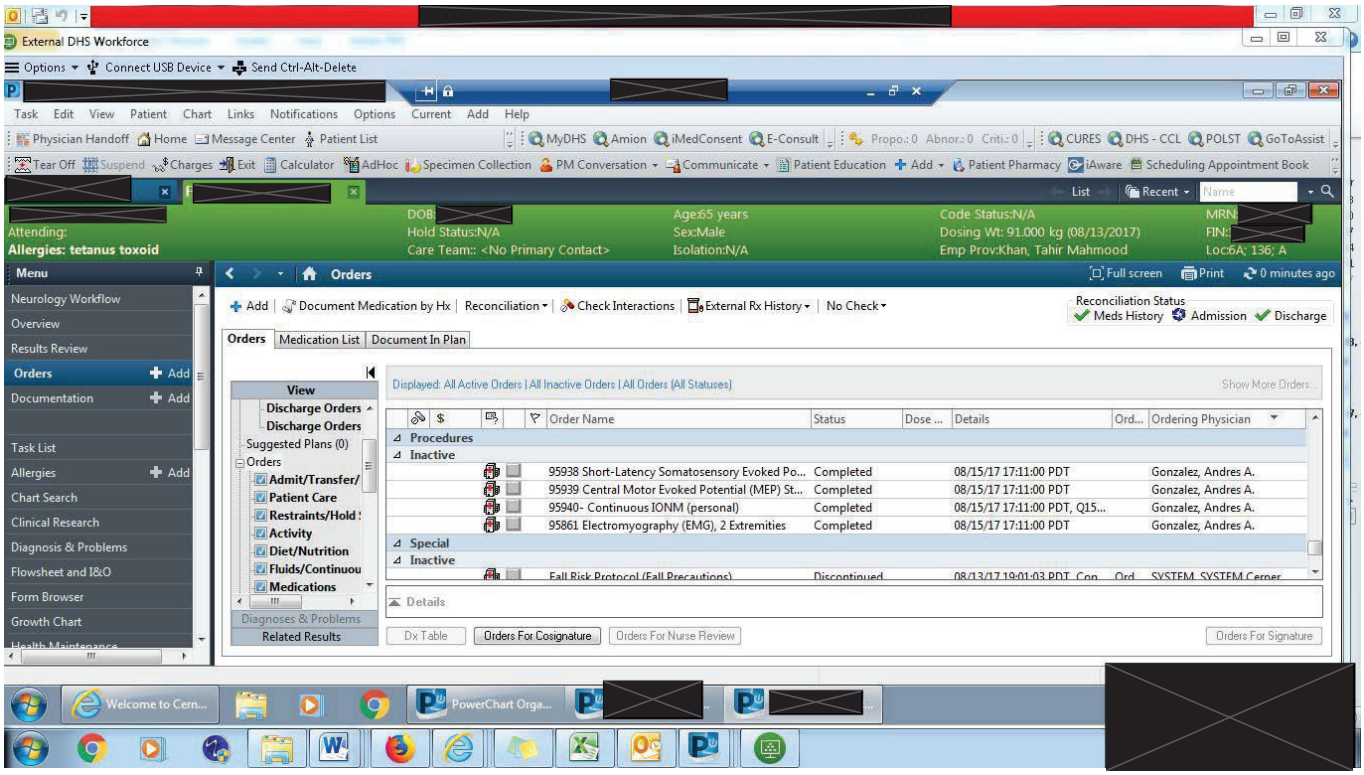
HISTORY OF PRESENT ILLNESS: This is a 64-year-old male, who was seen in our clinic last week with severe cervical stenosis and cervical myelopathy, which had progressed to the point where he was no longer ambulatory. His previous attempts at surgery had been delayed due to the fact that he had not cleared Anesthesia for pulmonary issues. He presented to the LA County USC Emergency Department on Sunday for worsening weakness, and we admitted him. We obtained a Pulmonary consult, and he was cleared for the operating room. I discussed with him that due to his severe cervical stenosis, that this was a high risk surgery and that the goals would be to prevent worsening and stabilize his symptoms. I explained to him that we would attempt an anterior approach, and he was consented for a C5-6 and C6-7 anterior cervical diskectomy and fusion. Prior to the surgery, I explained to him that we may need to also stage this and do a posterior decompression and fusion, based on the degree of decompression we achieved anteriorly. However, prior to going to the operating room, he was not consented for a posterior approach. I will dictate a separate operative note for details of the intraoperative events. Briefly, after exposure of the spine and prior to the diskectomy, the patient's motor evoked potentials were found to have decreased significantly in the bilateral lower extremities and hands. At this time, we elevated the mean arterial pressures to greater than 95, and he received 20 mg of Decadron. We completed the diskectomy for concern that there was ongoing compression at C5-6 and also removed the Caspar pin retractors and took his head out of extension. He had slow return of his motors and sensories. However, they were not a baseline by the completion of the C5-6 diskectomy. At this point, I made the decision to urgently perform a posterior decompression and fusion, due to the concern that other levels of the cervical stenosis might be contributing to his decline on neuromonitoring. We attempted to reach family and were unsuccessful. Therefore, a 2 physician emergency consent was obtained due to the immediate and grave risk of prolonged neurologic disability. The posterior approach was performed uneventfully with a decompression and fusion from C3-C6 and a partial laminectomy at C7. Following the posterior decompression, he did start to regain some of his motor evoked and sensory potentials in his bilateral lower extremities that were lost. In the operating room immediately after surgery, he was found to be wiggling his toes and moving his arms and legs. We will keep him intubated in the ICU for airway protection, given the high cervical level of his stenosis. I was able to reach his mother Delores by phone at approximately 6 o'clock p.m. and apprised her of all of the events and that we had to urgently performed the posterior approach without obtaining formal informed consent from him or a family member. I further explained that I had spoken with him about a posterior approach, but that we did not consent him for this for today. I told her that we will keep her updated about his status on a daily basis.

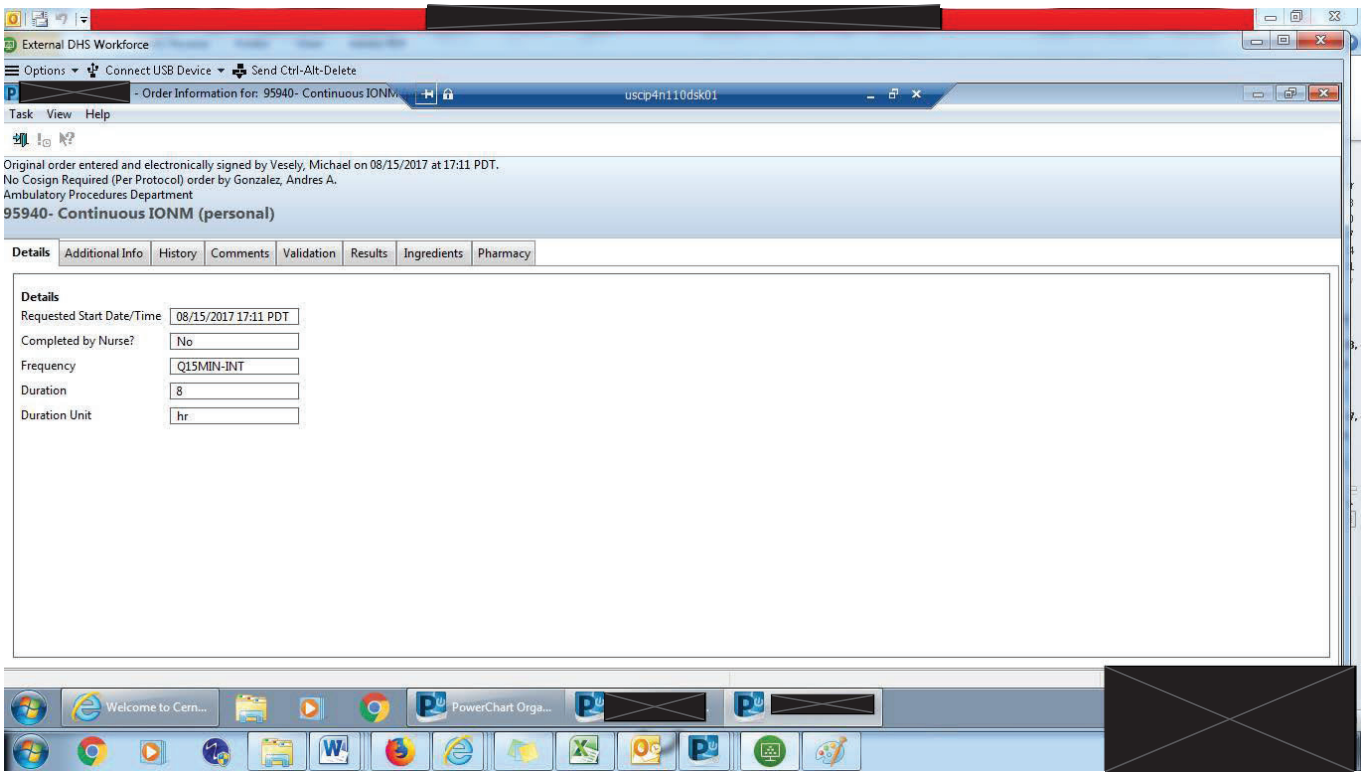
Dictated By: Vivek A. Mehta, MD

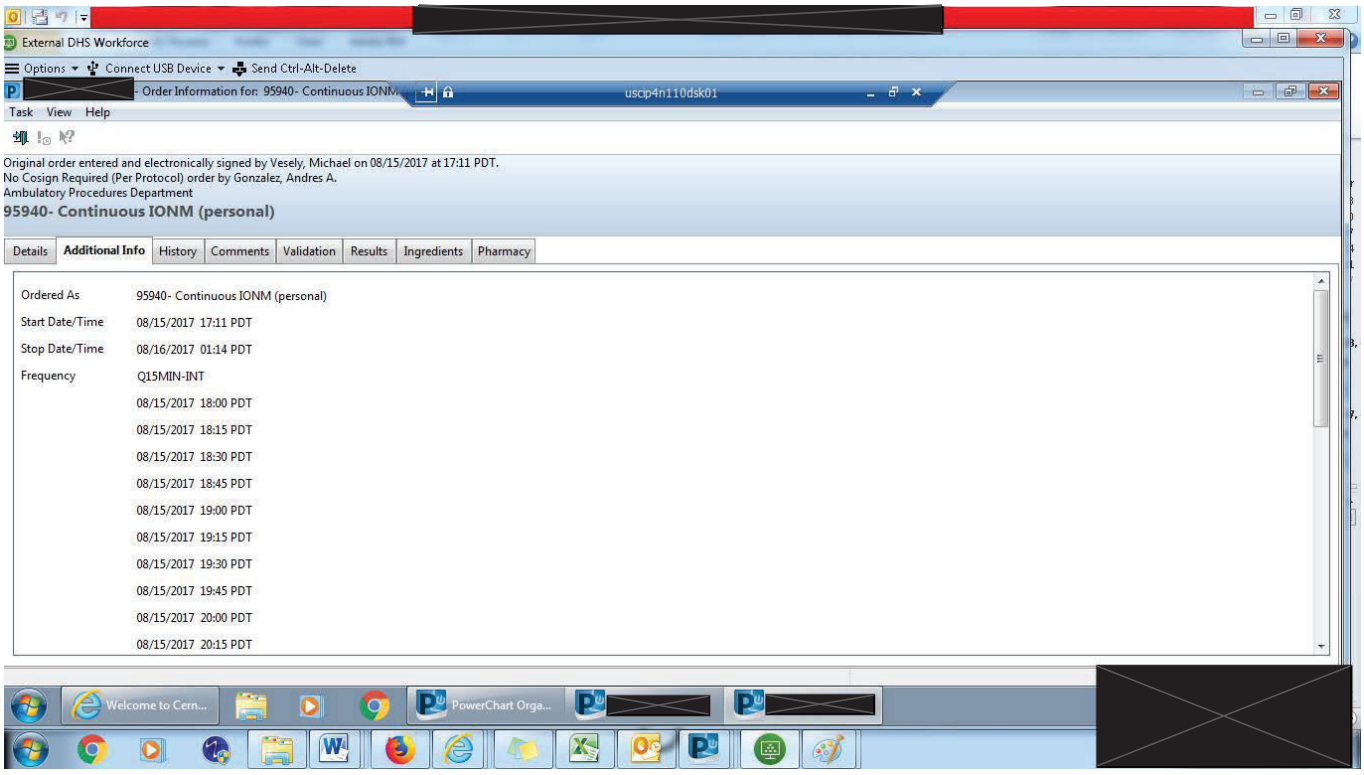
Vivek A. Mehta, MD

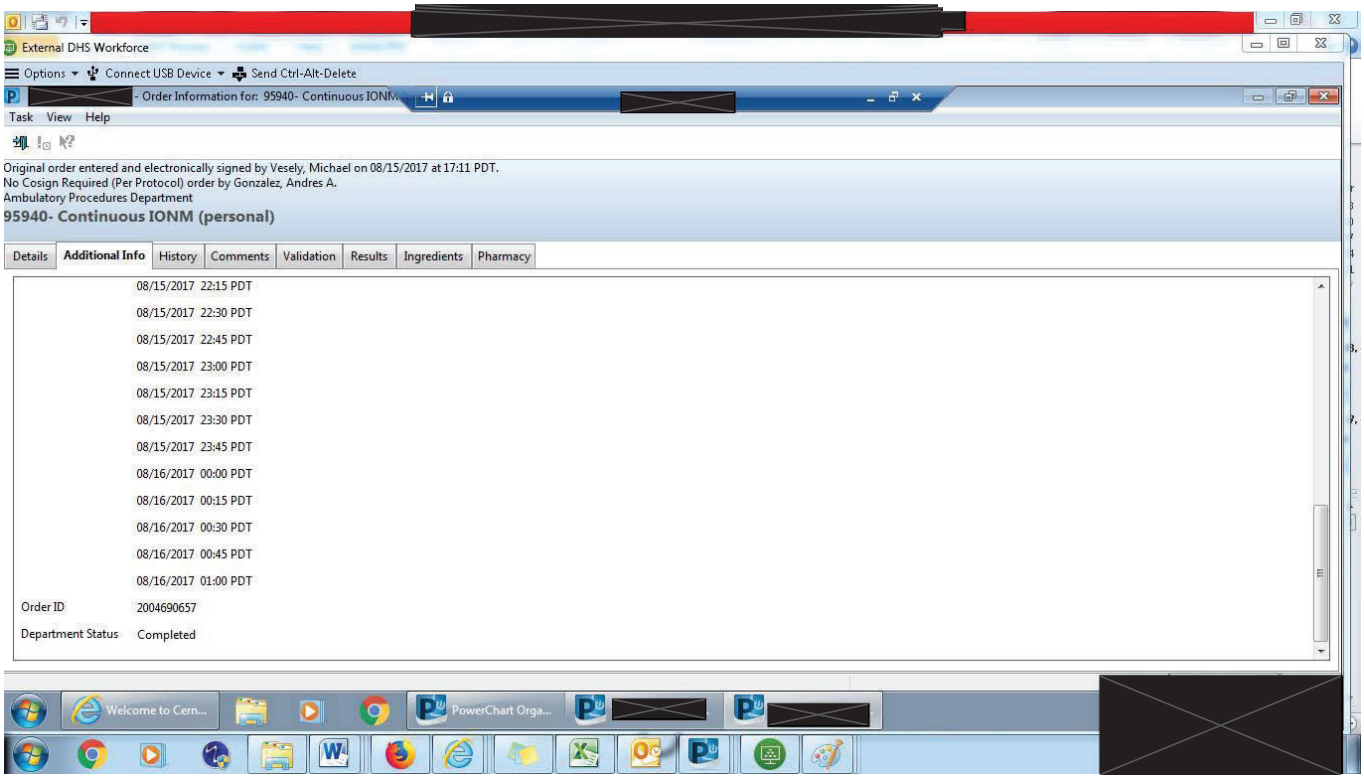
VAM/MODL
JOB #: 164995/753601225

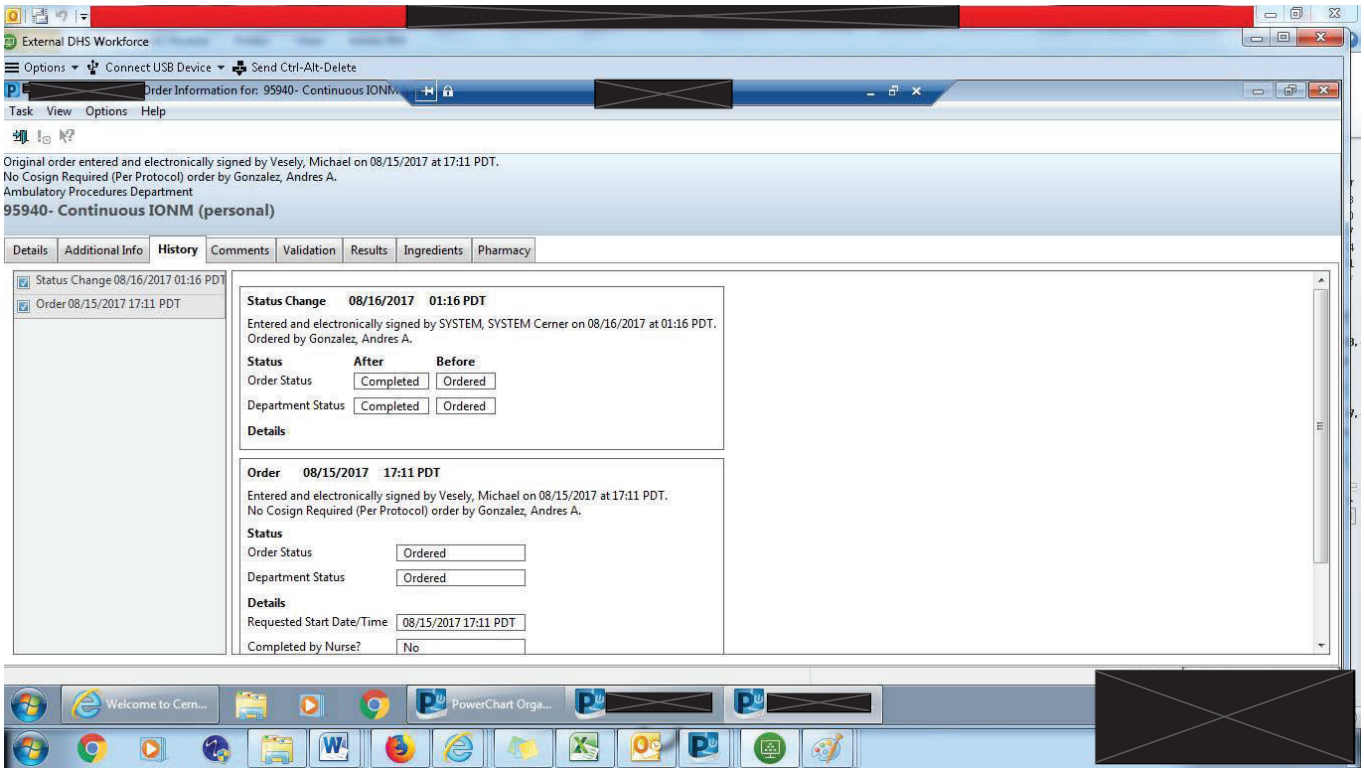

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Task Edit View Patient Chart Links Notifications Documentation Help
Physician Handoff Home Message Center Patient List
MyDHS Amion iMedConsent E-Consult
CURES DHS - CCL POLST GoToAssist
Tear Off Suspend Charges Exit Calculator AdHoc Specimen Collection PM Conversation Communicate Patient Education Add Patient Pharmacy iAware Scheduling Appointment Book
Attending:
Allergies: tetanus toxoid
Hold Status:N/A
Care Team:: <No Primary Contact>
Age:65 years
Sex:Male
Isolation:N/A
Code Status:N/A
Dosing Wt: 91.000 kg (08/13/2017)
Loc:6A; 136; A
Menu
Neurology Workflow
Overview
Results Review
Orders
Documentation
Task List
Allergies
Chart Search
Clinical Research
Diagnosis & Problems
Flowsheet and I&O
Form Browser
Growth Chart
Documentation
Full screen
Print
0 minutes ago
Add Sign Forward Provider Letter Modify In Error Preview
List
Display : coding summary
Previous Note
Next Note
Arranged By: Date
Newest At ...
Coding Summary 9/14/2017 23:59:...
Coding Summary
Coding Summary 9/2/2017 16:30:0...
Coding Summary
Coding Summary 8/10/2017 23:59:...
Coding Summary
Coding Summary 6/30/2017 01:16:...
Coding Summary
Coding Summary 5/17/2017 23:59:...
Coding Summary
<< Previous
Next >>
CODING DATE: 10/05/2017 FINAL
LAC+USC Medical Center
DSCH STATUS:
Skilled Nursing Facility
PAYOR:
In-Home Supportive Services 39
Grouper:
454 MS-DRG Combined anterior/posterior spinal fusion w CC
Welcome to Cern...

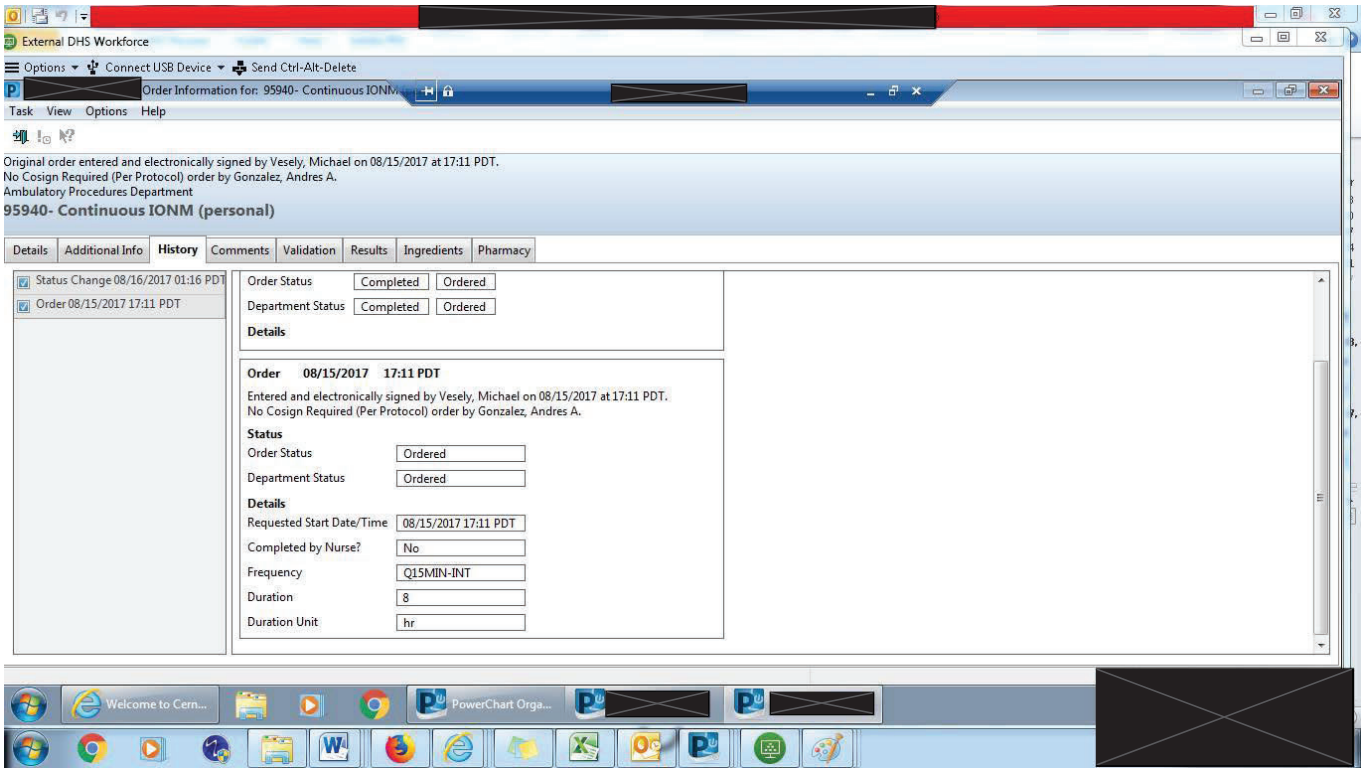

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Task Edit View Patient Chart Links Notifications Options Current Add Help
Physician Handoff Home Message Center Patient List
MyDHS Amion iMedConsent E-Consult
CURES DHS - CCL POLST GoToAssist
Tear Off Suspend Charges Exit Calculator AdHoc Specimen Collection PM Conversation Communicate Patient Education Add Patient Pharmacy iAware Scheduling Appointment Book
Attending:
Allergies: tetanus toxoid
DOB:
Hold Status:N/A
Care Team:: <No Primary Contact>
Age:65 years
Sex:Male
Isolation:N/A
Code Status:N/A
Dosing Wt: 91.000 kg (08/13/2017)
Emp Prov:Khan, Tahir Mahmood
MRN:
FIN:
Loc:6A; 136; A
Menu
Neurology Workflow
Overview
Results Review
Orders
Documentation
Task List
Allergies
Chart Search
Clinical Research
Diagnosis & Problems
Flowsheet and I&O
Form Browser
Growth Chart
Orders
Full screen
Print
0 minutes ago
Add
Document Medication by Hx
Reconciliation
Check Interactions
External Rx History
No Check
Reconciliation Status
Meds History
Admission
Discharge
Orders
Medication List
Document In Plan
View
Discharge Orders
Discharge Orders
Suggested Plans (0)
Orders
Admit/Transfer/
Patient Care
Restraints/Hold
Activity
Diet/Nutrition
Fluids/Continuou
Medications
Diagnoses & Problems
Related Results
Displayed: All Active Orders | All Inactive Orders | All Orders (All Statuses)
Show More Orders...
Order Name
Status
Dose ...
Details
Ord...
Ordering Physician
Procedures
Inactive
95938 Short-Latency Somatosensory Evoked Po... Completed 08/15/17 17:11:00 PDT Gonzalez, Andres A.
95939 Central Motor Evoked Potential (MEP) St... Completed 08/15/17 17:11:00 PDT Gonzalez, Andres A.
95940- Continuous IONM (personal) Completed 08/15/17 17:11:00 PDT, Q15... Gonzalez, Andres A.
95861 Electromyography (EMG), 2 Extremities Completed 08/15/17 17:11:00 PDT Gonzalez, Andres A.
Special
Inactive
Fall Risk Protocol (Fall Precautions) Discontinued
Details
Dx Table
Orders For Cosignature
Orders For Nurse Review
Orders For Signature
Welcome to Cern...
PowerChart Orga...

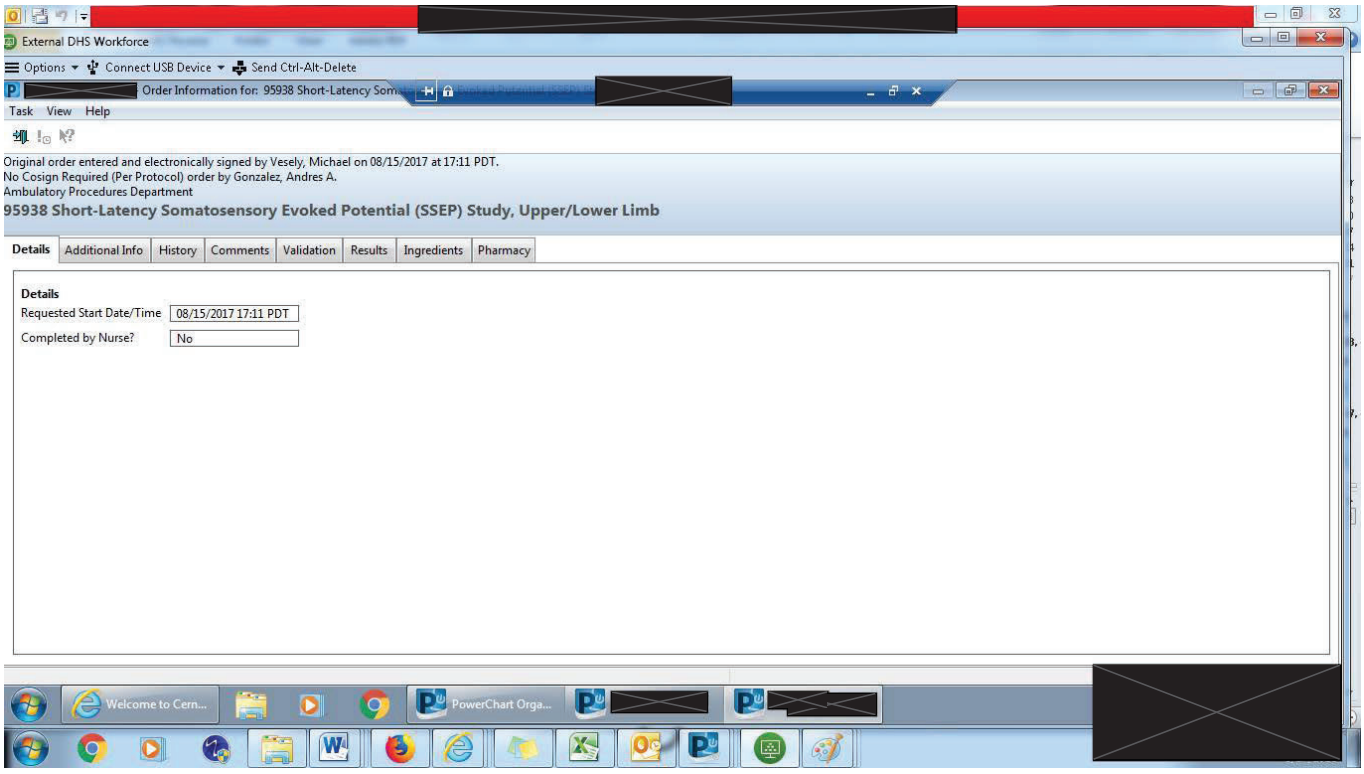

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
- Order Information for: 95940- Continuous IONM
uscip4n110dsk01
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95940- Continuous IONM (personal)
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Frequency
Q15MIN-INT
Duration
8
Duration Unit
hr
Welcome to Cern...
PowerChart Orga...

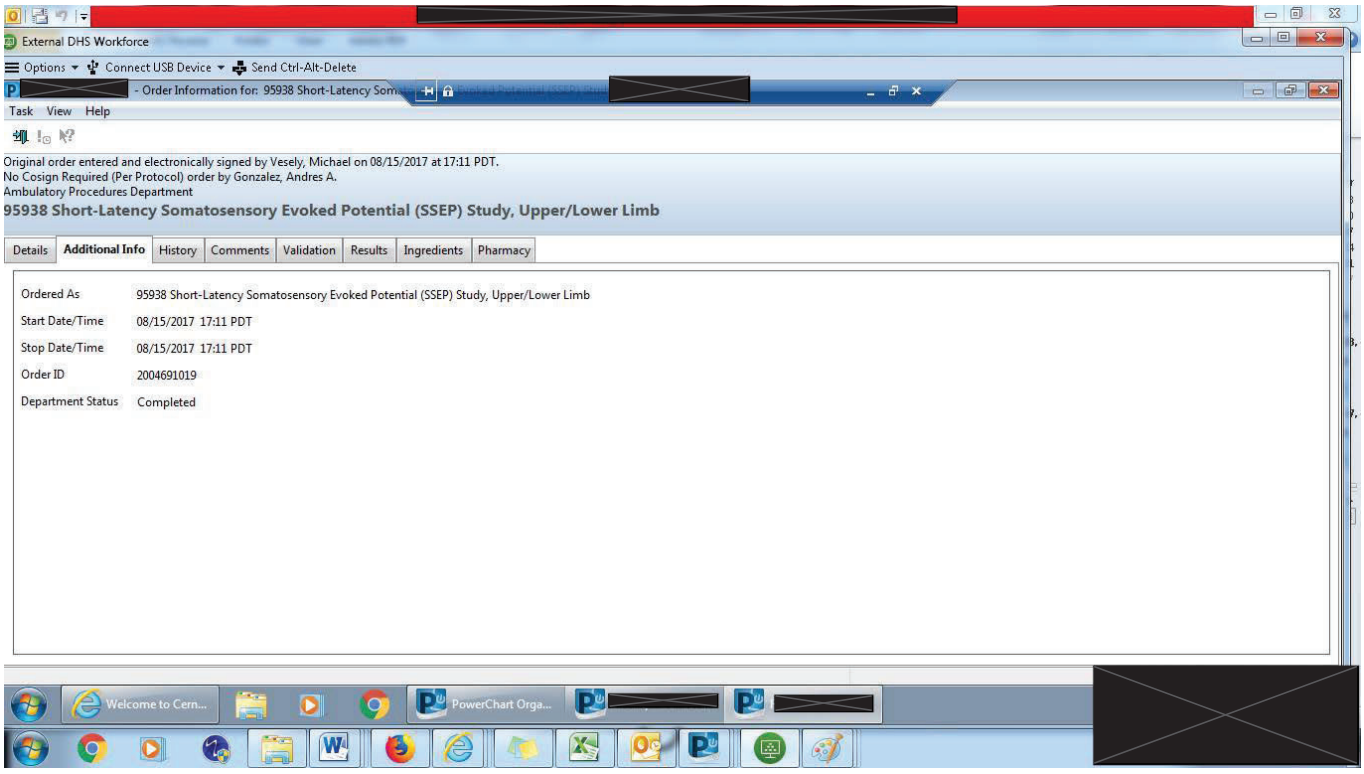

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95940- Continuous IONM
uscip4n110dsk01
Task View Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95940- Continuous IONM (personal)
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Ordered As
95940- Continuous IONM (personal)
Start Date/Time
08/15/2017 17:11 PDT
Stop Date/Time
08/16/2017 01:14 PDT
Frequency
Q15MIN-INT
08/15/2017 18:00 PDT
08/15/2017 18:15 PDT
08/15/2017 18:30 PDT
08/15/2017 18:45 PDT
08/15/2017 19:00 PDT
08/15/2017 19:15 PDT
08/15/2017 19:30 PDT
08/15/2017 19:45 PDT
08/15/2017 20:00 PDT
08/15/2017 20:15 PDT
Welcome to Cern...
PowerChart Orga...

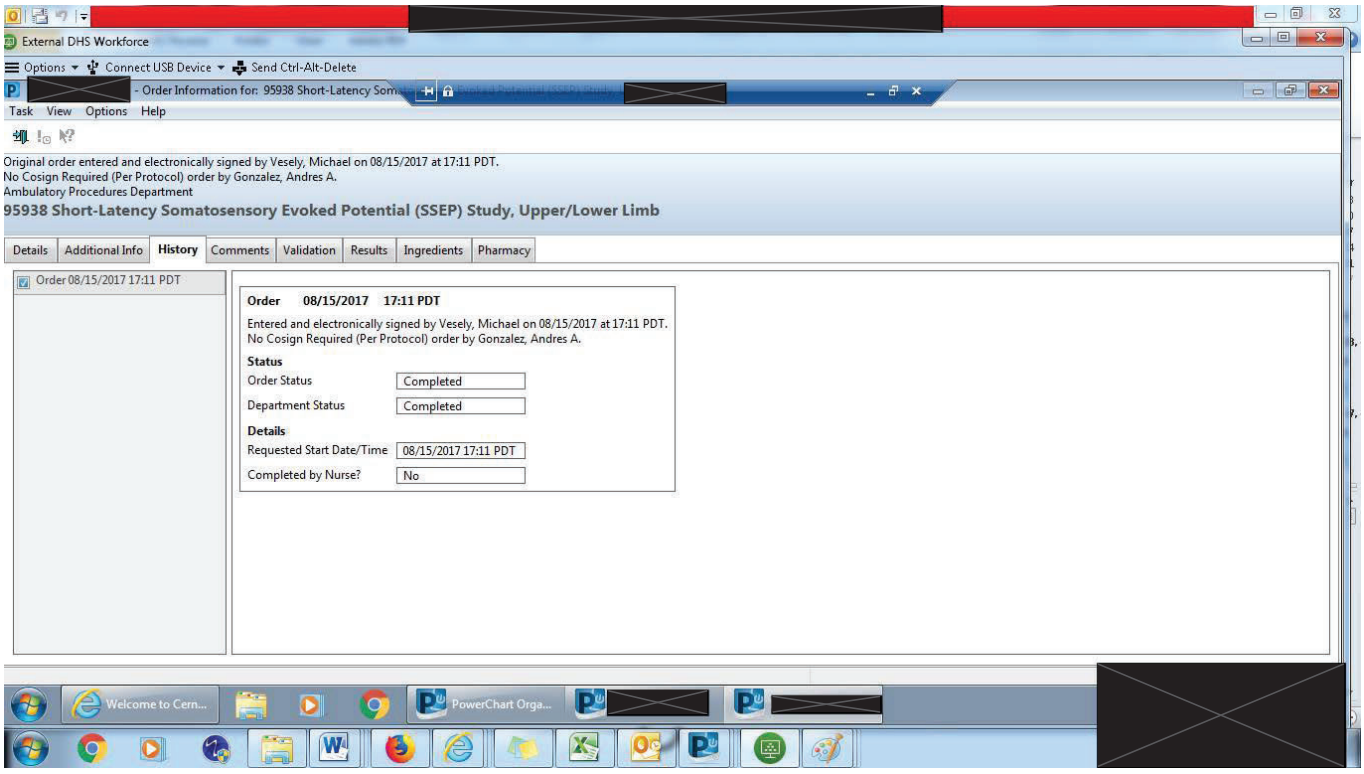

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95940- Continuous IONM
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95940- Continuous IONM (personal)
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
08/15/2017 22:15 PDT
08/15/2017 22:30 PDT
08/15/2017 22:45 PDT
08/15/2017 23:00 PDT
08/15/2017 23:15 PDT
08/15/2017 23:30 PDT
08/15/2017 23:45 PDT
08/16/2017 00:00 PDT
08/16/2017 00:15 PDT
08/16/2017 00:30 PDT
08/16/2017 00:45 PDT
08/16/2017 01:00 PDT
Order ID
2004690657
Department Status
Completed
Welcome to Cern...
PowerChart Orga...

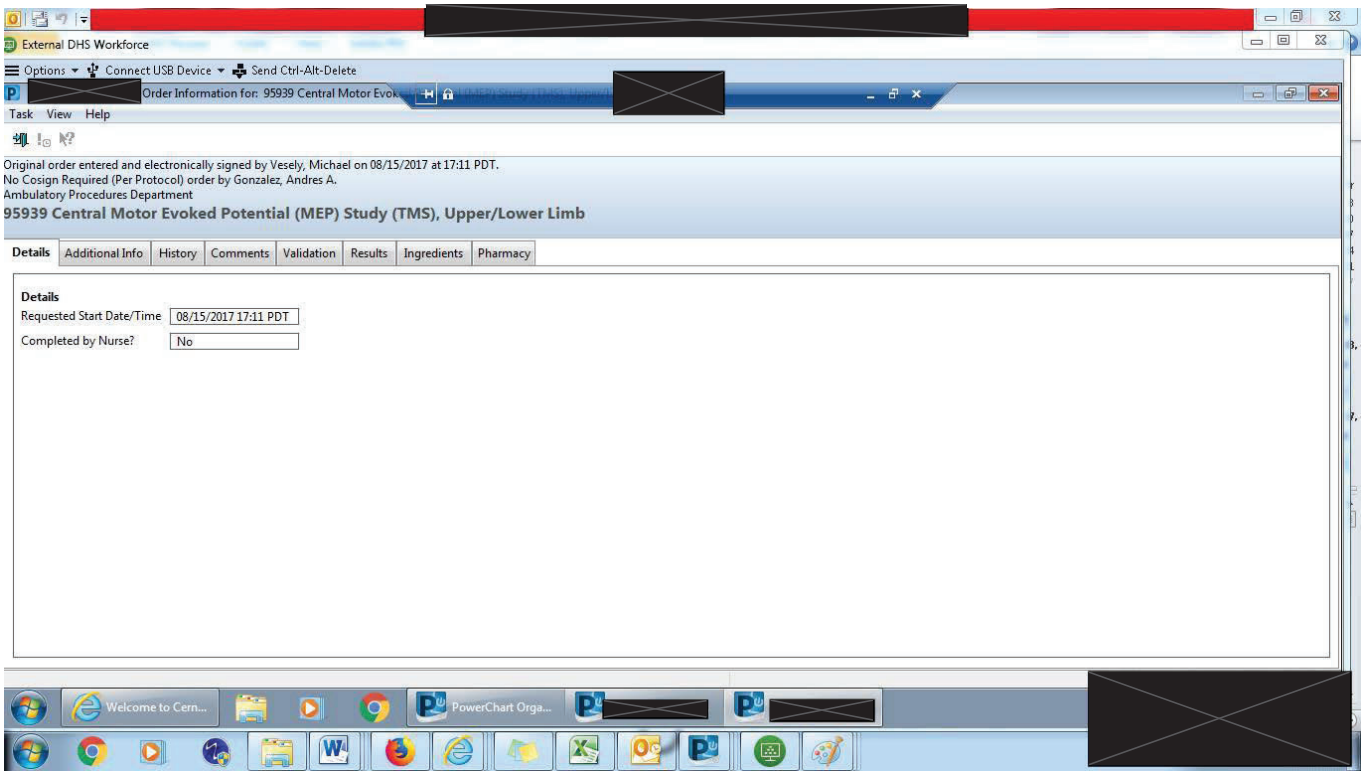

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95940- Continuous IONM
Task View Options Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95940- Continuous IONM (personal)
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Status Change 08/16/2017 01:16 PDT
Order 08/15/2017 17:11 PDT
Status Change 08/16/2017 01:16 PDT
Entered and electronically signed by SYSTEM, SYSTEM Cerner on 08/16/2017 at 01:16 PDT.
Ordered by Gonzalez, Andres A.
Status
After
Before
Order Status
Completed
Ordered
Department Status
Completed
Ordered
Details
Order 08/15/2017 17:11 PDT
Entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Status
Order Status
Ordered
Department Status
Ordered
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...

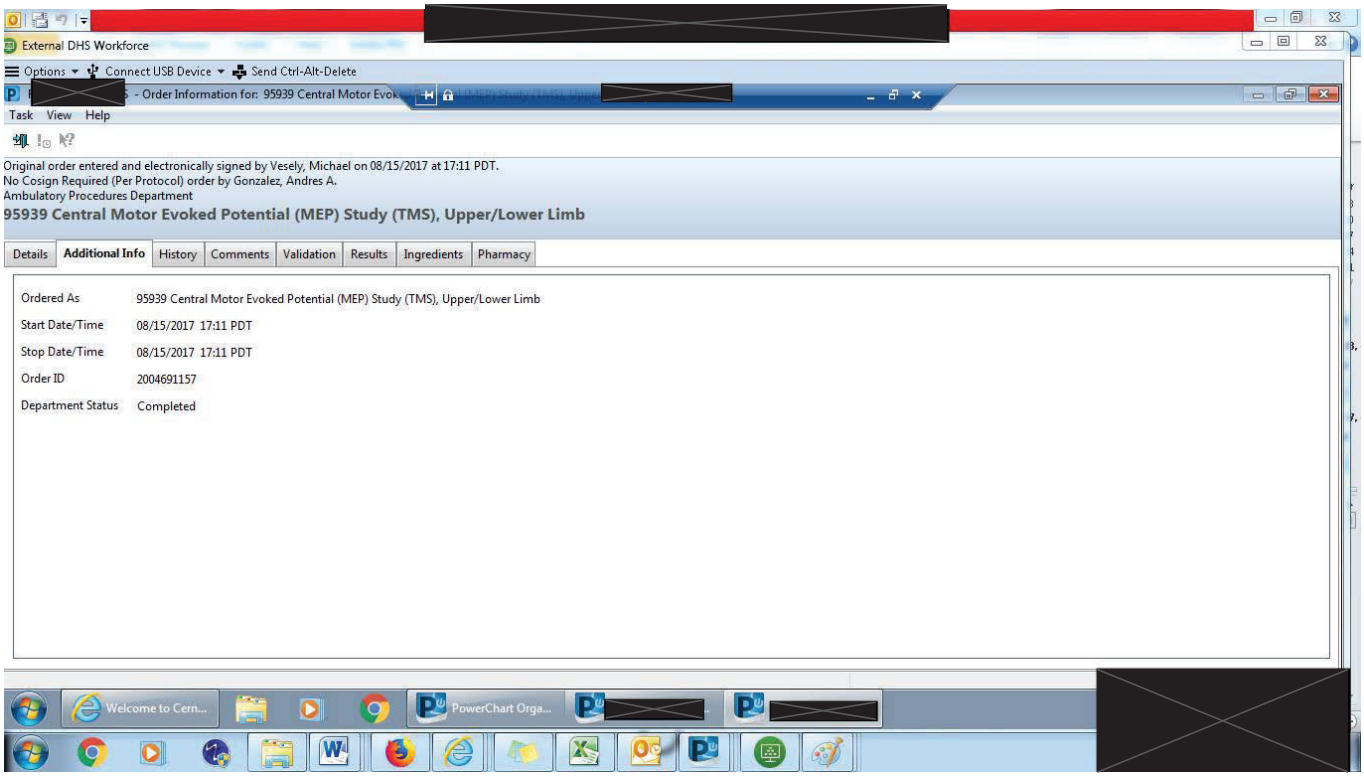

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95940- Continuous IONM
Task View Options Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95940- Continuous IONM (personal)
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Status Change 08/16/2017 01:16 PDT
Order 08/15/2017 17:11 PDT
Order Status
Completed
Ordered
Department Status
Completed
Ordered
Details
Order 08/15/2017 17:11 PDT
Entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Status
Order Status
Ordered
Department Status
Ordered
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Frequency
Q15MIN-INT
Duration
8
Duration Unit
hr
Welcome to Cern...
PowerChart Orga...

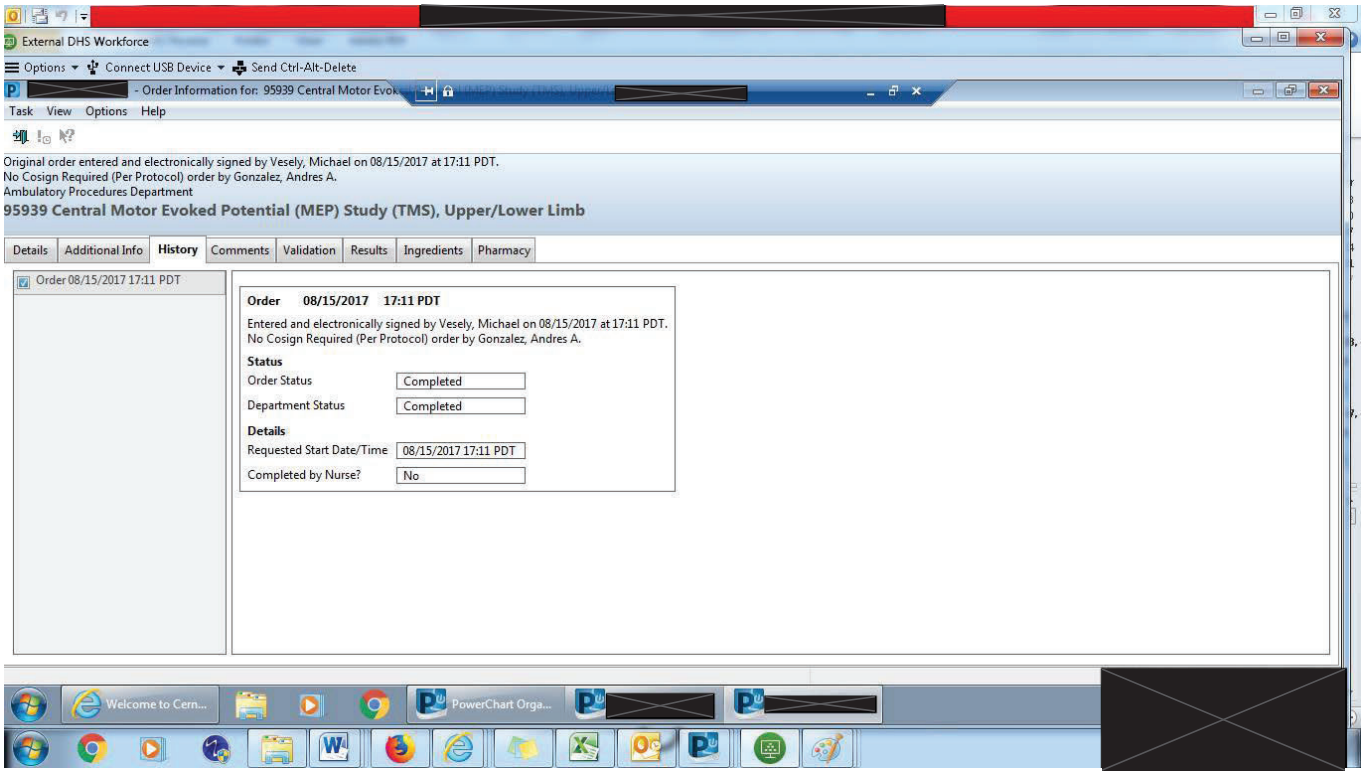

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95938 Short-Latency Som
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95938 Short-Latency Somatosensory Evoked Potential (SSEP) Study, Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...

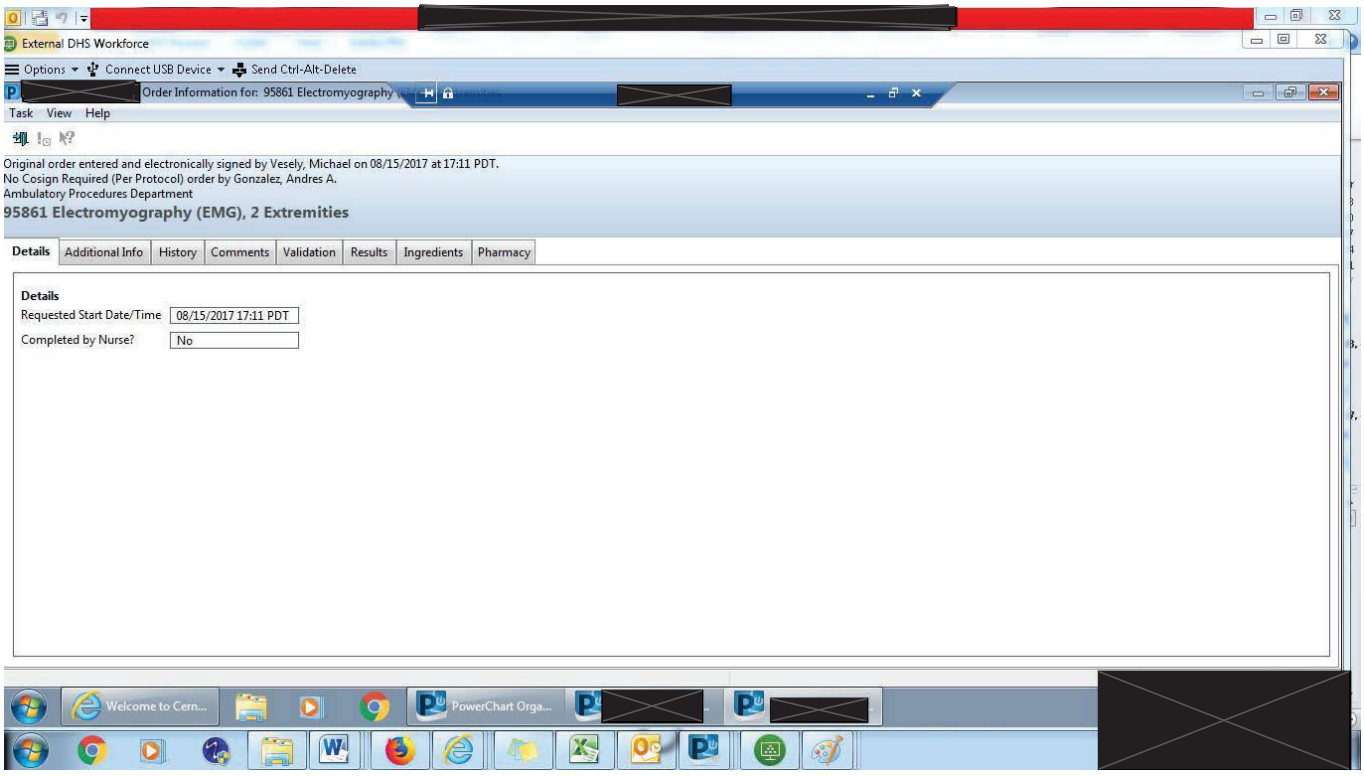

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95938 Short-Latency Som
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95938 Short-Latency Somatosensory Evoked Potential (SSEP) Study, Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Ordered As
95938 Short-Latency Somatosensory Evoked Potential (SSEP) Study, Upper/Lower Limb
Start Date/Time
08/15/2017 17:11 PDT
Stop Date/Time
08/15/2017 17:11 PDT
Order ID
2004691019
Department Status
Completed
Welcome to Cern...
PowerChart Orga...

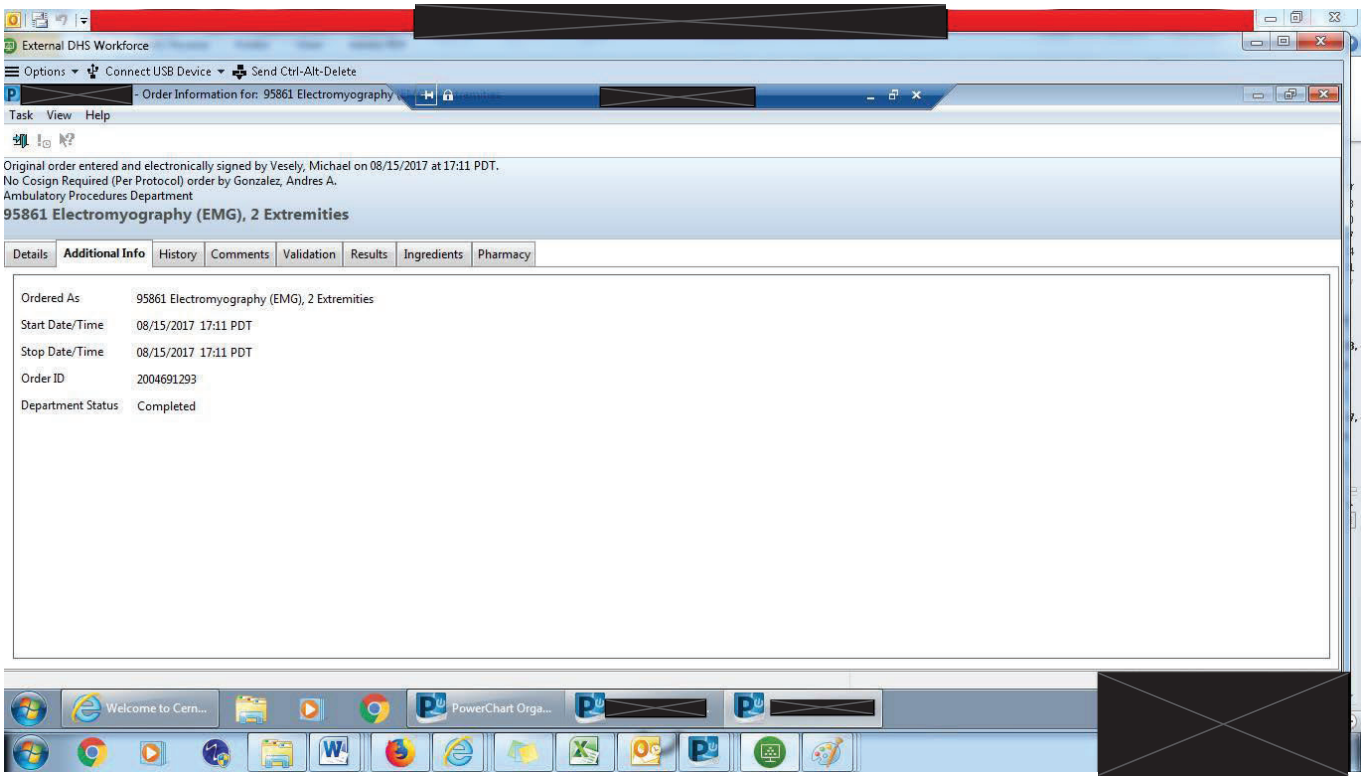

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Task View Options Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95938 Short-Latency Somatosensory Evoked Potential (SSEP) Study, Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Order 08/15/2017 17:11 PDT
Order 08/15/2017 17:11 PDT
Entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Status
Order Status
Completed
Department Status
Completed
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...

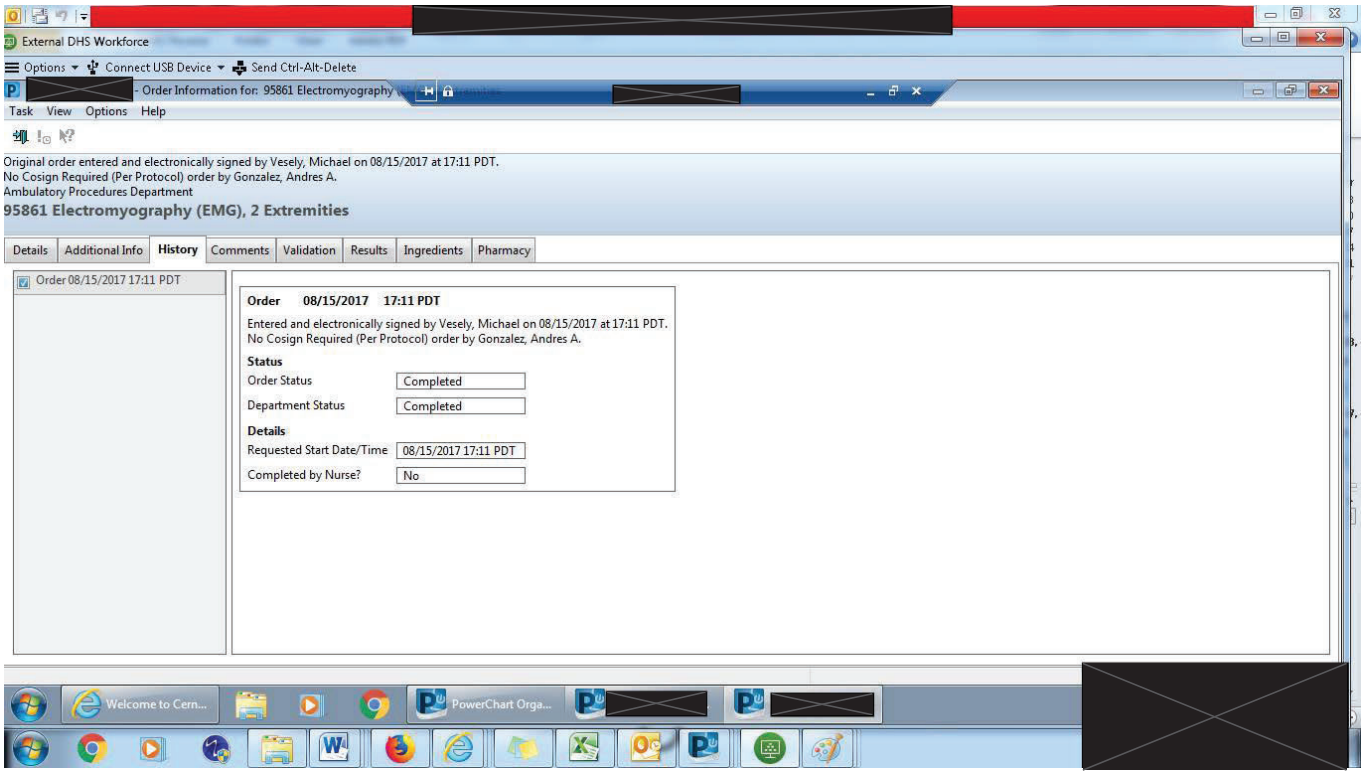

External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95939 Central Motor Evok
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95939 Central Motor Evoked Potential (MEP) Study (TMS), Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...


External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Task View Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95939 Central Motor Evoked Potential (MEP) Study (TMS), Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Ordered As
95939 Central Motor Evoked Potential (MEP) Study (TMS), Upper/Lower Limb
Start Date/Time
08/15/2017 17:11 PDT
Stop Date/Time
08/15/2017 17:11 PDT
Order ID
2004691157
Department Status
Completed
Welcome to Cern...
PowerChart Orga...


External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Task View Options Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95939 Central Motor Evoked Potential (MEP) Study (TMS), Upper/Lower Limb
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Order 08/15/2017 17:11 PDT
Order 08/15/2017 17:11 PDT
Entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Status
Order Status
Completed
Department Status
Completed
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...


External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95861 Electromyography
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95861 Electromyography (EMG), 2 Extremities
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...


External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95861 Electromyography
Task
View
Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95861 Electromyography (EMG), 2 Extremities
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Ordered As
95861 Electromyography (EMG), 2 Extremities
Start Date/Time
08/15/2017 17:11 PDT
Stop Date/Time
08/15/2017 17:11 PDT
Order ID
2004691293
Department Status
Completed
Welcome to Cern...
PowerChart Orga...


External DHS Workforce
Options
Connect USB Device
Send Ctrl-Alt-Delete
Order Information for: 95861 Electromyography
Task View Options Help
Original order entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Ambulatory Procedures Department
95861 Electromyography (EMG), 2 Extremities
Details
Additional Info
History
Comments
Validation
Results
Ingredients
Pharmacy
Order 08/15/2017 17:11 PDT
Order 08/15/2017 17:11 PDT
Entered and electronically signed by Vesely, Michael on 08/15/2017 at 17:11 PDT.
No Cosign Required (Per Protocol) order by Gonzalez, Andres A.
Status
Order Status
Completed
Department Status
Completed
Details
Requested Start Date/Time
08/15/2017 17:11 PDT
Completed by Nurse?
No
Welcome to Cern...
PowerChart Orga...

2 AG

Intraoperative Note
* Final Report *

[redacted]

* Final Report *

Procedure Date: 8/15/2017
Referring Physician: Mehta, M.D.
OR#: 20
Study #: LAC 17-341
Technician: NN/MV
Patient History: 64-year-old man with over a year of difficulty with using hands, paresthesias in hands, difficulty walking due to imbalance. Has been non-ambulatory for 6 months
Surgical Procedure: C5-C7 ACDF

MONITORING MODALITIES:
SSEPs (somatosensory evoked potentials), TcMEPs (transcranial motor evoked potentials) and free run EMG.

RESULTS:
During the procedure the aforementioned modalities were continuously monitored.

The surgeon was informed at baseline that the patient's potentials amplitudes were adequate for monitoring bilaterally. During discectomy the bilateral hands and feet motor evoked potentials and global sensory evoked potentials were lost. A minimal recovery of responses was seen during closing. 7.25 hours were spent monitoring, and the surgeons were kept informed of the monitoring status and any significant changes.

IMPRESSION:
Somatosensory evoked potentials and Transcranial Motor evoked potentials were continuously monitored during surgery. Bilateral hand and feet motor evoked potentials and global sensory evoked potentials were lost during discetomy with minimal recovery at closing.

Please see comment.

COMMENT: The changes seen in the (upper and lower extremity somatosensory and motor evoked potentials during discectomy suggest that an interruption of this pathway occurred. Clinical correlation is strongly advised.

Further monitoring data is available by contacting the Intraoperative Neurophysiological Monitoring department

Signature Line
Electronically Signed on 08/15/17 17:09 PDT

Vesely, Michael

[redacted]

[redacted]

(End of Report)

Operative Report
* Final Report *

[redacted]

* Final Report *

Operative Report (Verified)

REPORT OF OPERATION

DEPARTMENT: NEUROLOGICAL SURGERY-NS DATE OF OPERATION: August 15, 2017

ATTENDING SURGEON: Vivek A. Mehta, MD

DICTATED BY: Vivek A. Mehta, MD

OPERATING SURGEON: Vivek A. Mehta, MD

ASSISTANT(S): Justin C. Lee, MD

PREOPERATIVE DIAGNOSIS: Cervical stenosis with myelopathy.

POSTOPERATIVE DIAGNOSIS: Cervical stenosis with myelopathy.

PROCEDURE PERFORMED: C5-6 anterior cervical discectomy and fusion and C3 through 6 laminectomy and posterior spinal fusion and partial C7 laminectomy.

ANESTHESIA: General endotracheal intubation.

COMPLICATIONS: Drop in neurophysiologic monitoring during the anterior portion of the case requiring an urgent posterior decompression and fusion.

MONITORING: Neurophysiologic monitoring with SSEP and MEP and EMG.

IMPLANTS USED: Biomet anterior cervical plating and posterior cervical lateral mass screws from C3-C6 and 2 lordotic rods and a crosslink.

INDICATIONS FOR PROCEDURE: This is a 64-year-old male who presented to the emergency room with worsening bilateral upper and lower extremity weakness, loss of dexterity and decreased sensation. Imaging demonstrated congenital cervical stenosis with severe disc degeneration at C5-6 and C6-7 with severe cord compression and cord signal change at these levels. He was offered a staged anterior, followed by posterior approach. The risks, benefits, and alternatives associated with the surgery were discussed in detail with the patient. The risks include, but were not limited to infection, bleeding, nerve root or spinal cord injury, paralysis, loss of bowel bladder function, CSF leak, postoperative back pain, instability, need for reoperation. Medical complications include heart attack, stroke, DVT, PE, pneumonia and possibly death. Prior to surgery, I explained to him that we would 1st attempt the anterior approach and could see how his symptoms respond after surgery, but I thought it was likely that he would need a posterior approach. He was agreeable to the plan of staged procedure to achieve adequate decompression of his severe stenosis.

OPERATIVE PROCEDURE: The patient was brought back to the operating room. He underwent general endotracheal intubation with induction of general anesthesia without any complications. Appropriate intravenous lines were placed. After the induction of

Operative Report
* Final Report *

[redacted]

general anesthesia, we notified Anesthesia to maintain mean arterial pressures greater than 85 throughout the case. He was then left in the prone position. His neck was slightly extended. The anterior cervical spine was then shaved, prepped, draped in the usual sterile fashion. Fluoroscopy was brought in to confirm the approximate C5-6 level. This area was then shaved, prepped, draped in the usual sterile fashion. We then performed a time-out to confirm correct patient, procedure, site, and side. A dilute solution of lidocaine with epinephrine was injected into the subcutaneous tissue in a horizontal crease at the approximate levels. We then opened the skin with a 10 blade and used Bovie cautery to open down to the platysma. We performed a subplatysmal dissection. We opened the platysma sharply and performed a subplatysmal dissection. We found the medial border of the sternocleidomastoid and dissected down until we were over the prevertebral fascia. Handheld retractors were then placed, and the longus colli were divided in the midline using Bovie cautery and elevated laterally off the spine. Trimline cervical retractors were then placed, and a spinal needle was placed at the approximate C5-6 level. Again, fluoroscopy was used to confirm that we were at the appropriate level. We then opened this disc space using an 11 blade and performed discectomy using a combination of curets and Kerrison. Prior to the discectomy, we noticed a drop in the bilateral lower extremity motors and sensory in bilateral upper extremity, and at this point, mean arterial pressure was driven above 95, and the head was removed from slight extension. We completed the discectomy and found adequate decompression of the thecal sac after removal of the posterior longitudinal ligament. At this time, motor evoked potentials had some mild recovery, but they were still significantly decreased from baseline. At this point, the decision was made to urgently perform a posterior decompression and fusion, given the multiple levels of cervical stenosis. We considered performing an anterior cervical diskectomy and fusion at the level below and also considered taking him to MRI to determine which levels were most stenotic. However, given the acute change in findings on neuromonitoring, I felt that his best chance of making a neurologic recovery was a rapid decompression of his central canal. We attempted to reach his family, but were unable to do so, and so emergency 2 physician consent was obtained to proceed with the posterior stage. Of note, I had previously discussed this with the patient, but we had not obtained formal documented consent for this. At this time, an anterior cervical diskectomy plate was then placed, and 4 screws were applied. The wound was copiously irrigated, and a 7 flat JP was placed in the wound and tunneled out. We closed the platysmal layer with 2-0 Vicryl pops, the deep dermal layer with 3-0 Vicryl, and the skin with a subcutaneous Biosyn. The dressing was applied. He was then placed in Mayfield head clamp and was turned prone onto a regular OR table with gel rolls. The posterior cervical region was then shaved, prepped, draped in the usual sterile fashion. Again, a time-out was performed indicating that this was an urgent/emergent procedure performed under a 2 physician emergency consent, due to the lack of available family members and due to the impending neurologic injury and need for decompression to prevent neurologic dysfunction and restore any remaining function. The skin was opened in the midline with a 10 blade, and bipolar cautery was used to dissect subperiosteally to expose the lateral masses of the C3 through 6 level, making sure not to violate the C2-3 joint or the C6-7 joint. There was some exposure of the C6-7 joint on the left side. Fluoroscopy was brought in to confirm the appropriate levels. At this point, lateral mass screw starting points were drilled from C3-6. We then performed a wide laminectomy at these levels and obtained a good decompression of the thecal sac. We extended the laminectomy inferiorly to the superior part of the C7 lamina. After we had achieved adequate decompression, we placed lateral mass screws from C3-C6 and connected these with a rod and set screw caps. A crosslink was then placed. The wound was copiously irrigated. The facet joints and lateral masses were then decorticated. Autograft was then harvested from the lamina and placed over the area of the exposed bone. Meticulous hemostasis was then achieved. We then placed a 10 flat JP above the thecal sac and closed the fascia with 0 Vicryl pops, the deep dermal with 2-0 Vicryl pops, and the drain was secured in place using a 3-0 nylon. Following the posterior decompression, there was recovery of the motor and sensory evoked potentials. All sponge and needle counts were correct at the end of the procedure. The patient was returned to the supine position and left intubated, given the concern for high cervical cord level and taken back to the intensive care unit.

Dictated By: Vivek A. Mehta, MD

Vivek A. Mehta, MD

VAM/MODL
JOB #: 967387/753730931

[redacted]

[redacted]

Operative Report
* Final Report *

Signature Line
Electronically Signed on 08/23/17 08:38 PDT

Mehta, Vivek A., MD

Electronically Signed on 08/23/17 08:38 PDT

Mehta, Vivek A., MD

[redacted]

Inpatient Progress Note - Generic

[redacted] - 100726827

Inpatient Progress Note (Verified)

DATE OF SERVICE:

ATTENDING PHYSICIAN: Vivek A. Mehta, MD

RESIDENT PHYSICIAN: Vivek A. Mehta, MD

HISTORY OF PRESENT ILLNESS: This is a 64-year-old male, who was seen in our clinic last week with severe cervical stenosis and cervical myelopathy, which had progressed to the point where he was no longer ambulatory. His previous attempts at surgery had been delayed due to the fact that he had not cleared Anesthesia for pulmonary issues. He presented to the LA County USC Emergency Department on Sunday for worsening weakness, and we admitted him. We obtained a Pulmonary consult, and he was cleared for the operating room. I discussed with him that due to his severe cervical stenosis, that this was a high risk surgery and that the goals would be to prevent worsening and stabilize his symptoms. I explained to him that we would attempt an anterior approach, and he was consented for a C5-6 and C6-7 anterior cervical diskectomy and fusion. Prior to the surgery, I explained to him that we may need to also stage this and do a posterior decompression and fusion, based on the degree of decompression we achieved anteriorly. However, prior to going to the operating room, he was not consented for a posterior approach. I will dictate a separate operative note for details of the intraoperative events. Briefly, after exposure of the spine and prior to the diskectomy, the patient's motor evoked potentials were found to have decreased significantly in the bilateral lower extremities and hands. At this time, we elevated the mean arterial pressures to greater than 95, and he received 20 mg of Decadron. We completed the diskectomy for concern that there was ongoing compression at C5-6 and also removed the Caspar pin retractors and took his head out of extension. He had slow return of his motors and sensories. However, they were not a baseline by the completion of the C5-6 diskectomy. At this point, I made the decision to urgently perform a posterior decompression and fusion, due to the concern that other levels of the cervical stenosis might be contributing to his decline on neuromonitoring. We attempted to reach family and were unsuccessful. Therefore, a 2 physician emergency consent was obtained due to the immediate and grave risk of prolonged neurologic disability. The posterior approach was performed uneventfully with a decompression and fusion from C3-C6 and a partial laminectomy at C7. Following the posterior decompression, he did start to regain some of his motor evoked and sensory potentials in his bilateral lower extremities that were lost. In the operating room immediately after surgery, he was found to be wiggling his toes and moving his arms and legs. We will keep him intubated in the ICU for airway protection, given the high cervical level of his stenosis. I was able to reach his mother Delores by phone at approximately 6 o'clock p.m. and apprised her of all of the events and that we had to urgently performed the posterior approach without obtaining formal informed consent from him or a family member. I further explained that I had spoken with him about a posterior approach, but that we did not consent him for this for today. I told her that we will keep her updated about his status on a daily basis.

Dictated By: Vivek A. Mehta, MD

Vivek A. Mehta, MD

VAM/MODL
JOB #: 164995/753601225

Printed by: [redacted]

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

*** Final Report ***

: Main OR Intraop Nursing Record (Verified)

SC Main OR Intraop Nursing Record Summary

:imary Physician:	Mehta, Vivek A.
ıse Number:	USCOR-2017-11831
.nalized Date/Time:	[redacted]e
:. Name:	[redacted]
O.B./Sex:	100726827
ıd Rec #:	Buckingham, Clare Sandra
ıysician:	1008835114
.nancial #:	I
:. Type:	116/A
›om/Bed:	08/13/17 18:55:00 -
ımit/Disch:	
ıstitution:	

afety Checklist 2) Time Out - USC MOR

:e-Care Text:
A.10 Confirms patient identity A.20 Verifies operative procedure, surgical site, and laterality A.20.1 Verifies consent for planned procedure A.30 Verifies allergies

	Entry 1		
.nal Time Out was ›nducted based on ıe DHS Final Time ıt	Yes	Comments	N/A
ıecklist/Standards: .l Time Out ırticipants ceased :tivity, confirmed ıtient, site, :ocedure, and ›nsents	Yes	Comments	N/A
.me Out Members	Mehta, Vivek A., Lee, Justine C, Tobin, Joshua M., Lee, Christopher Gary, Dimla, Romerson Del Rosario, Kim RN, John, Apikyan, Zhanna, Fernandez MS, Luis	Time Out Time	08/15/17 10:31:00

ıst-Care Text:
E.30 Evaluates verification process for correct patient, site, side, and level surgery

[redacted]

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

	CERVCL BELW C2 EA ADDL NTRSPC	FORAMOTOMY 1 SEGMENT CERVICAL
lodifiers		Spine-cervical
ıdditional	C5-6/C6-7 ACDF	C-6 ANB C-7
rocedure Detail		
:imary Procedure	Yes	No
:tending Surgeon	Mehta, Vivek A.	Mehta, Vivek A.
! Record		
:art	08/15/17 10:32:00	08/15/17 15:10:00
:op	08/15/17 18:15:00	08/15/17 18:15:00
ıesthesia Type	General	General
ırgical Service	Neurosurgery (SN)	Neurosurgery (SN)
ınd Class	1-Clean	1-Clean

ıst-Care Text:
O.730 The patinet's care is consistent with the individualized perioperative plan of care

ase Times - USC MOR

	Entry 1		
ıtient			
atient In Room Time	08/15/17 09:02:00	**Patient Out Room Time**	08/15/17 18:26:00
ıse			
rocedure Start Time	08/15/17 10:32:00	**Procedure Stop Time**	08/15/17 18:15:00

ase Attendance - USC MOR

	Entry 1	Entry 2	Entry 3
ıse Attendee	Mehta, Vivek A.	Lee, Justine C	Tobin, Joshua M.
ıle Performed	Surgeon - Attending	Surgical Resident	Anesthesiologist - Attending
me In	08/15/17 09:02:00	08/15/17 09:02:00	08/15/17 09:01:00
me Out	08/15/17 18:26:00	08/15/17 18:26:00	08/15/17 18:26:00
ocedure(s)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)

	Entry 4	Entry 5	Entry 6
ıse Attendee	Lee, Christopher Gary	Dimla, Romerson Del Rosario	Kim RN, John
ıle Performed	Anesthesia Resident	Anesthesia Resident	Circulator - Primary
me In	08/15/17 09:01:00	08/15/17 09:01:00	08/15/17 09:02:00
me Out	08/15/17 18:26:00	08/15/17 18:26:00	08/15/17 15:20:00
ocedure(s)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

	Entry 10	Entry 11	Entry 12
ıse Attendee	Mastandrea, Michelle	Richardson RN, Latanya	Thompson RN, Jason
›le Performed	Scrub - Relief	Circulator - Relief	Circulator - Team 1
.me In	08/15/17 12:45:00	08/15/17 13:45:00	08/15/17 14:25:00
.me Out	08/15/17 13:30:00	08/15/17 14:45:00	08/15/17 14:30:00
:ocedure(s)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)

	Entry 13	Entry 14	Entry 15
ıse Attendee	Contreras, Zoila	Tomson RN, John	Thompson RN, Jason
›le Performed	Scrub - Relief	Circulator - Relief	Circulator - Relief
.me In	08/15/17 15:30:00	08/15/17 15:10:00	08/15/17 16:20:00
.me Out	08/15/17 18:26:00	08/15/17 18:26:00	08/15/17 16:55:00
:ocedure(s)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)

ıneral Comments:
STAN RULAND (REP FROM BIO MED)

ıtheter, Drains, Tub - USC MOR

:e-Care Text:
A.310 Identifies factors associated with an increased risk for hemorrhage or fluid and electrolyte imbalance
Im.250 Administers care to invasive device sites

	Entry 1	Entry 2
›vice Description	TRAY CATHETERIZATION SURESTEP BARDEX COMPLETE CARE STATLOCK BACTI-GUARD NATURAL RUBBER OD16 FR FOLEY DRAINAGE BAG INFECTION CONTROL STERILE LATEX DISPOSABLE	DRAIN INCISION 20CMX7MM SILICONE FULL PERFORATION HUBLESS RADIOPAQUE STERILE
›vice Type	Indwelling	Bulb Reservoir
›cation	Bladder	Neck
ılloon Inflation ıount	10 ML	
›cation Detail	Internal	Left
:esent on Arrival?	No	No
ıserted By	Kim RN, John	Lee, Justine C
:'d at End of Case?	Yes	No
:'d By	Kim RN, John	
:ainage Details		
›rainage?	Yes	Yes
ımount	Measured in Milliliters	Measured in Milliliters

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

ounts Verification - USC MOR

e-Care Text:
A.20 Verifies operative procedure, sugical site, and laterality A.20.2 Assesses the risk for unintended retained foreign body Im.20 Performs required counts

Entry 1

ocedure	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)		
itial Counts			
nitial Counts	Kim RN, John, Apikyan,	**Items included in the Initial Count**	Sponges, Sharps
erformed By	Zhanna		
vity Count			
osing Counts			
losing Counts	Kim RN, John, Apikyan,	**Items included in the Closing Count**	Sponges, Sharps
erformed By	Zhanna		
nal Counts			
inal Count Status	Correct	**Final Counts Performed By**	Contreras, Zoila, Tomson RN, John
tems Included in inal Count	Sponges, Sharps		
tcome Met (0.20)	Yes		

st-Care Text:
E.50 Evaluates results of the surgical count 0.20 Patient is free from unintended retained foreign objects

atient Positioning - USC MOR

e-Care Text:
A.240 Assesses baseline skin condition A.280 Identifies baseline musculoskeletal status A.280.1 Identifies physical alterations that require additional precautions for procedure-specific positioning A.510.8 Maintains patient's dignity and privacy Im.120 Implements protective measures to prevent skin/tissue injury due to mechanical sources Im.40 Positions the patient Im.80 Applies safety devices

Entry 1

ocedure	Fusion Spine Cervical Anterior and Disce, Fusion Spine Cervical Posterior(Spine-cervical)	**Body Position**	Supine
ft Arm Position	Tucked and padded at side	**Right Arm Position**	Tucked and padded at side
ft Leg Position	Extended	**Right Leg Position**	Extended
et Uncrossed?	Yes	**Pressure Points Checked**	Yes
sitioning Device	Elbow Protector, Board - Arm, Elbow Protector, Head Protector, Table - Standard, Strap - Stafety	**Positioned By**	Lee, Justine C, Kim RN, John, Dimla, Romerson Del Rosario
fety Strap plied?	Yes	**Location**	Abdomen
tcome Met (0.80)	Yes		

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

neral Comments:
HEAD, BLE, BUE ALIGNED, IN POSITION, WARM TO TOUCH. BILATERAL RADIAL PULSE 3, BILATERAL PEDAL PULSE 3.

kin Prep - USC MOR
e-Care Text:
A.30 Verifies allergies A.20 Verifies procedure, surgical site, and laterality A.510.8 Maintains paritnet's dignity and privacy Im.270 Performs Skin Preparation Im.270.1 Implements protective measures to prevent skin and tissue injury due to chemical sources A.300.1 Protects from cross-contamination

	Entry 1		
in Prep			
rep Agents (Im.270)	Iodine Povacrylex and Isopropyl Alcohol	**Prep By**	Mehta, Vivek A.
rep Area (Im.270)	Neck, Chin	**Prep Area Details**	Right
kin Prep Agent Dry	Yes		
ithout Pooling			
ir Removal			
lair Removal Methods	Clipper	**Hair Removal By**	Lee, Justine C
lair Removal	08/15/17 09:30:00	**Hair Removal Site**	Face
ate/Time			
lair Removal Site	Bilateral		
etails			
itcome Met (O.100)	Yes		

st-Care Text:
E.10 Evaluates for signs and symptoms of physical injury to skin and tissue O.100 Patient is free from signs and symptoms of chemical injury

eneral Case Data - USC MOR
e-Care Text:
A.350.1 Classifies surgical wound

	Entry 1		
se Information			
R	USC OR 20	**Case Level**	5
ound Class	1-Clean	**Specialty**	Neurosurgery (SN)
SA Class	2		
eop Diagnosis	Spinal stenosis, cervical region		

st-Care Text:
O.760 Patient receives consistent and comparable care regardless of the setting

mplant Log - USC MOR
e-Care Text:
A.20 Verifies operative procedure, surgical site, and laterality A.20.1 Verifies consent for planned procedure Im.350 Records implants inserted during the operative or invasive procedure

	Entry 1	Entry 2	Entry 3
plant/Explant	Implant	Implant	Implant
plant			
entification			
escription	SPACER ALLOGRAFT 12.5X15X6MM 7D LORDOTIC	SCREW BONE L12 MM OD4 MM SPINE FIX	SCREW BONE MAXAN L12 MM OD4 MM SPINE VARIABLE

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

elect Left or ight when pplicable:	Right		
uantity	1	2	2
itcome Met (O.30)	Yes	Yes	Yes
	Entry 4	**Entry 5**	**Entry 6**
plant/Explant	Implant	Implant	Implant
plant entification escription	PLATE BONE L11MM LEVEL 1	SCREW BONE VIRAGE L12 MM OD3.5 MM SPINE POLYAXIAL NONSTERILE	SCREW BONE VIRAGE L10 MM OD3.5 MM SPINE POLYAXIAL NONSTERILE
ize	11MM PLATE		
erial Number			
ot Number			
anufacturer	BIOMET	ZIMMER	ZIMMER
atalog #	14-522111	07.01702.005	07.01702.003
xpiration Date			
age Data			
mplant Site	Spine-cervical	Back	Back
elect Left or ight when pplicable:			
uantity	1	4	4
itcome Met (O.30)	Yes	Yes	Yes
	Entry 7	**Entry 8**	**Entry 9**
plant/Explant	Implant	Implant	Implant
plant entification escription	LID STERILIZATION CLOSURE TOP VIRAGE SCREW NONSTERILE DISPOSABLE	07.01710.005	CONNECTOR ROD VIRAGE TITANIUM L30 MM SPINE ADJUSTABLE HEAD TO HEAD TRANSVERSE OCT FIXATION SYSTEM
ize		60MM X 3.5MM RO	
erial Number			
ot Number			
anufacturer	ZIMMER	ZIMMER	ZIMMER
atalog #	07.01728.001		07.01717.002
xpiration Date			
age Data			
mplant Site	Back	Back	Back
elect Left or ight when pplicable:			
uantity	6	2	1
itcome Met (O.30)	Yes	Yes	Yes

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

ot Number		
anufacturer	ZIMMER	ZIMMER
atalog #	07.01719.001	07.01720.001
xpiration Date		
age Data		
mplant Site	Back	Back
elect Left or		
ight when		
pplicable:		
uantity	2	2
itcome Met (O.30)	Yes	Yes

st-Care Text:
E.30 Evaluates verification process for correct patient, site, side and level surgery O.30 Patient's procedure is performed on the correct site, side, and level

edication Administration - USC MOR

e-Care Text:
E.10 Evaluates for signs and symptoms of physical injury to skin and tissue O.10 Patient is free from

	Entry 1	Entry 2	Entry 3
me Administered			
dication	BACITRACIN 50,000 UNITS/1 VIAL INJECTION	THROMBIN TOPICAL 20,000 UNIT/1 VIAL (RECOMB)	LIDOCAINE 1% with EPINEPHRINE 1:100,000 INJ, 20 ML INJ
ute of Admin	Irrigation	Topical	Subcutaneous
se	5		
lume	50000 uIU/mL	4000 units	
ministered By	Lee, Justine C	Lee, Justine C	Lee, Justine C
itcome Met (O.130)	Yes	Yes	Yes

	Entry 4	Entry 5	Entry 6
me Administered			
dication	VANCOMYCIN HYDORCHLORIDE 500 MG POWDER VIAL	TOBRAMYCIN POWDER 1.2 GM INJ	BACITRAC/NEOM/POLYM OINT 28 GM, 1 AAPLY/28 GM OIN
ute of Admin	Topical	Topical	Topical
se			
lume	1.2 gm	1.2 gm	1 oz
ministered By	Lee, Justine C	Lee, Justine C	Lee, Justine C
itcome Met (O.130)	Yes	Yes	Yes

st-Care Text:
E.20 Evaluates response to medications O.130 Patient receives appropriately administerd medication(s)

-Ray and Images - USC MOR

e-Care Text:
A.240 Assesses baseline skin condition A.240.1 Assesses history of previous radiation exposure Im.110 Implements protective measures to prevent injury due to radiation sources

	Entry 1		
te	Spine-cervical	X-Ray Type	C-Arm
itcome Met (O.110)	Yes		

[redacted]

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

uipment Type	WARMER BAIR HUGGER *USC	PUMP, ALP 501 COMPRESSION *USC	TABLE CMAX *USC
rial Number	14248	28784	C428107047
ttings (if plicable)			
ad Number (if plicable)			
te Sterilized			
mments			
tcome Met (O.700)	Yes	Yes	Yes

st-Care Text:
E.10 Evaluates signs and symptoms of physical injury to skin and tissue O.700 Patient is free from signs and symptoms of injury caused by extraneous objects

urgical Irrigation - USC MOR

e-Care Text:
A.280 Verifies allergies A.310 Identifies factors associated with an increased risk for hemorrhage or fluid and electrolyte imbalance Im.210 Administers prescribed solutions A.280.1 Implements protective measures to prevent skin or tissue injury due to thermal sources

	Entry 1	Entry 2	Entry 3
rigant	Yes		Yes
rigant Used:	SOLUTION INTRAVENOUS 0.9% SODIUM CHLORIDE 1 L VIAFLEX LATEX FREE	SOLUTION IRRIGATION WATER 1 L PLASTIC POUR BOTTLE STERILE	SOLUTION INTRAVENOUS 5% DEXTROSE 0.9% SODIUM CHLORIDE 1 L VIAFLEX LATEX FREE
rigant Volume In			6000 mL
rigant Volume Out			6000 mL
l irrigation ditives must be tered in the Med ministration gment.			
tcome Met (O.300)	Yes	Yes	Yes

st-Care Text:
E.10 Evaluates for signs and symptoms of physical injury to skin and tissue O.300 Patient is free from signs and symptoms of injury due to thermal sources

autery - USC MOR

e-Care Text:
A.240 Assesses baseline skin condition A280.1 Identifies baseline musculoskeletal status Im.50 Implements protective measures to prevent injury due to electrical sources Im.60 Uses supplies and equipment within safe parameters Im.80 Applies safety devices

	Entry 1	Entry 2
U Type	Electrosurgical Unit	Electrosurgical Unit
lentification mber	f8c59745a	F1F18038A
cessories Used		
U Settings		
ipolar Setting	20	
lend Setting		
oag Setting	30	30

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

rounding Pad Needed?	Yes	Yes
rounding Pad Lot Number	70830168X EXP 04/25/2019	71170297X EXP 05/17/2019
Within Expiration Date?	Yes	Yes
rounding Pad Site	Thigh	Thigh
rounding Pad Site Detail	Left	Right
Hair Removed Under rounding Pad	No	No
Hair Removed Using:		
Skin Condition Under Grounding Pad	Intact	Intact
Verified By	Kim RN, John	Richardson RN, Latanya
Smoke Evacuation Device Used	No	No
Smoke Evacuation Unit:		
Outcome Met (O.10)	Yes	Yes

Post-Care Text:
E.10 Evaluates for signs and symptoms of physical injury to skin and tissue O.10 Patient is free from signs and symptoms of injury related to thermal sources

Cultures and Specimen - USC MOR

Pre-Care Text:
A.20 Verifies operative procedure, surgical site, and laterality Im.320 Manages culture specimen collection Im.330 Manages specimen handling and disposition

	Entry 1		
Cultures Ordered	No	**Specimens Ordered**	Yes
Outcome Met (O.40)	Yes		

Post-Care Text:
E.40 Evaluates correct processes have been performed for specimen handling and disposition O.40 Patient's specimen(s) is managed in the appropriate manner

Dressing/Packing - USC MOR

Pre-Care Text:
A.350 Assesses susceptibility for infection Im.250 Administers care to invasive devices Im.290 Administer care to wound sites Im.300 Implements aseptic technique

	Entry 1	Entry 2
Skin Prep Agent Removed Prior to Dressing?	Yes	Yes
Dressing Item Details		
Dressing Item (Im.290)	Steri strips	Antimicrobial patch, Occlusive dressing
Packing (Im.290)		
Cast (Im.290)		
Splint (Im.290)		
Tape (Im.290)	Liquid Bandage	Transparent

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

e-Care Text:
A.240 Assesses baseline skin condition Im.120 Implements protective measures to prevent skin or tissue injury due to mechanical sources Im.280.1 Implements progective measures to prevent skin or tissue injury due to thermal sources Im.360 Monitors for signs and symptons of infection

Entry 1

in Integrity	Not intact	**Skin Condition**	Tattoo
ndition Location	BUE, BACK	**Outcome Met (O.60)**	Yes

st-Care Text:
E.10 Evaluates for signs and symptoms of physical injury to skin and tissue E.270 Evaluate tissue perfusion O.60 Patient is free from signs and symptoms of injury caused by extraneous objects

neral Comments:
FEET TOENAILS ARE OVERGROWN, GREENISH WITH POSSIBLE FUNGUS GROWTH

afety Checklist 3) Sign Out - USC MOR

e-Care Text:
Im.330 Manages specimen handling and disposition

Entry 1

rse verbally nfirms with team e name of the erative cedure(s) and rrect CPT code	Yes	**Nurse verbally confirms with team specimen identity and label**	Yes
rse verbally nfirms with team y equipment oblems to be ldressed	NA	**The nurse confirmed with the surgeon and the incision is:**	Closed
re the strument, sponge, d needle counts rrect?	Yes	**All team members review key concerns for recovery and management of patient**	Yes
s this case a auma case?	No	**Was this an endoscopic case?**	No
s an implant used r this case?	Yes		

st-Care Text:
E.800 Ensures continuity of care E.50 Evaluates results of the surgical count

eparture from OR - USC MOR

Entry 1

ansport Time	08/15/17 18:26:00	**Patient Handoff Status**	Sedated
ansfer Evaluation eassessment	ESU Pad Site Checked, Tubes Drains Chains Secured, Warm Blanket Applied, Pressure Areas Checked, Sterile	**Skin Condition**	Warm, Dry

[redacted]

[redacted]

in OR Intraoperative Record
nal Report *

[redacted]

id

ase Comments
<None>

Finalized By: Tomson RN, John

ocument Signatures
gned By:
Tomson RN, John 08/15/17 18:55

[redacted]